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Water Resources Data for Oklahoma, Water Year 1971. Part 2. Water Quality Records

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1972

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Water Resources Data for Oklahoma
Water Year 1971
Part 2. Water Quality Records

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UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OK-71-2

Prepared in cooperation with the State of Oklahoma
and with other agencies

CALENDAR FOR WATER YEAR 1971

OCTOBER 1970

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER 1970

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER 1970

S	M	T	W	T	F	S
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JANUARY 1971

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY 1971

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

MARCH 1971

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

APRIL 1971

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY 1971

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE 1971

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

JULY 1971

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST 1971

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER 1971

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

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Water resources data for the 1971 water year for Oklahoma consist of records of discharge and water quality of streams, and water quality of lakes and reservoirs. This report contains water quality for 72 gaging stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating local, State, and Federal agencies in Oklahoma.

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Water Resources Data for Oklahoma

Water Year 1971

Part 2. Water Quality Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OK-71-2

Prepared in cooperation with the State of Oklahoma
and with other agencies

Prepared in cooperation with

Oklahoma Water Resources Board,
Oklahoma State Department of Health,
Environmental Health Service,
Bureau of Reclamation, U.S. Department
of the Interior

Water resources records, 1971, for Oklahoma are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Oklahoma
   Part 1. Surface Water Records

2. Water Resources Data for Oklahoma
   Part 2. Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Rm. 621, 201 Northwest 3rd Street
Oklahoma City, Oklahoma 73102

1974

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(Letters after station name designate type of data:
(c) chemical, (t) water temperature, (s) sediment)

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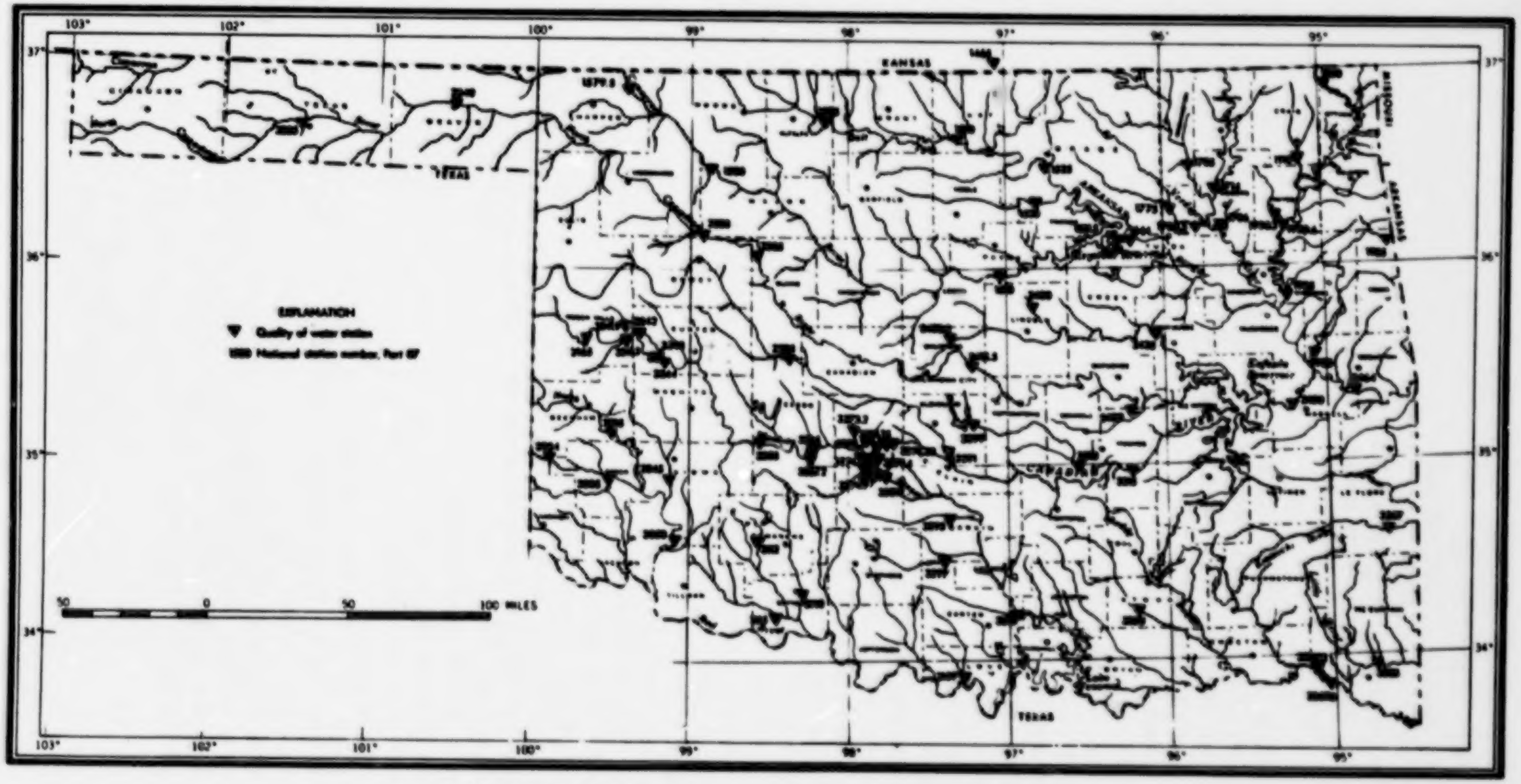
103°
102°
101°
100°
99°
98°
97°
96°
95°
37°
36°
35°
34°
KANSAS
MISSOURI
ARKANSAS
TEXAS
TEXAS
EXPLANATION
▼ Quality of water station
National station number, Part 07
50
0
50
100 MILES

Figure 1. Map showing locations of water-quality stations in Oklahoma, 1971 water year.

WATER RESOURCES DATA FOR OKLAHOMA, 1971

Part 2. Water Quality Records

by J. K. Kurklin

INTRODUCTION

Water-resources data for the 1971 water year for Oklahoma include records of data for the chemical and physical characteristics of surface water. Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently, and at some sites data were recorded on punched paper tape at 60-minute intervals. Records are given for 74 sampling stations of which 71 are continuous record stations and 3 are partial-record stations. A few pertinent stations (not included above) in bordering States are also included. The records were collected by the Water Resources Division of the U.S. Geological Survey under the direction of J. W. Odell, district chief, and were assembled under the direction of J. H. Irwin, district chief (June, 1971). Oklahoma district personnel who contributed to the collection, laboratory analysis and collation of data included T. E. Waldrep, D. M. Ferree, M. J. Webster, G. L. Keller, R. L. Factory, E. O. Stockton, and G. M. Lake. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Oklahoma.

The Geological Survey has published records of chemical quality, water temperatures, and sediment since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States". Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year. These records will be published laterin Geological Survey water-supply papers.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

Oklahoma Water Resources Board, Guy N. Keith, Chairman, succeeded by Milton Craig; Forrest Nelson, executive director.

Oklahoma State Department of Health, Environmental Health Services, Loyd F. Pummill, chief.

Agencies furnishing assistance in the form of funds were:

Corps of Engineers, U.S. Army
Bureau of Reclamation, U.S. Department of the Interior
Environmental Protection Agency

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined as follows:

Acre-foot (ac-ft, AC-FT) is a quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,500 cubic feet or about 326,000 gallons.

Bed material is the shifting portion of fragmented alluvial meterial of which the streambed is composed.

Biochemical oxygen demand (BOD) is a measure of the amount of oxygen required by aerobic bacteria while stabilizing decomposable organic matter. Thus, the determination of BOD provides an indication of the quantity of organic material in the water at the sampling point. Because complete stabilization may require a period too long for practical purposes, the 5-day BOD test has been accepted as standard. The BOD data presented in this report are based on the standard 5-day BOD test.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inche from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 millilitres is determined by the immediate membrane filter method.

Color of water as considered in this report is that due only to substances in solution. It may be of natural mineral, animal, or vegetable origin. Color may be caused by metallic substances, humus material, peat, algae, weeds, or protozoa. Industrial wastes may also color water.

Continuous-record station is a particular site where chemical quality, water temperature and/or sediment data are collected once daily, twice daily, more than twice daily, weekly, or monthly on a regularly scheduled basis.

Cubic foot per second (cfs, CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved oxygen (DO) in surface water is necessary for the support of aquatic life and aerobic decomposition of organic material, and thus is one of the most important indicators of the biological, chemical, and sanitary quality of the water.

Drainage area of a stream at a specified location is that area, measured in horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per litre (ug/l, UG/L) is a unit for expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (litre) of water. One thousand micrograms per litre is equivalent to one milligram per litre.

Milligrams per litre (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per litre represents the weight of solute per unit volume of water. Milligrams or micrograms per litre may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per litre by multiplying by the factors in table 1, page 5. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per litre of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2, page 5.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimetres (mm), of suspended sediment or bed material determined by sieve or sedimentation methods. Sedimantation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling) (Guy, 1969).

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per litre to milliequivalents per litre

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*	0.11119	Iodide (I^{-1})	0.00788
Ammonia as NH_4^{+1}	.05544	Iron (Fe^{+3})*	.05372
Barium (Ba^{+2})	.01456	Lead (Pb^{+2})*	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*	.14411
Bromide (Br^{-1})	.01251	Magnesium (Mg^{+2})	.08226
Calcium (Ca^{+2})	.04990	Manganese (Mn^{+2})*	.03640
Carbonate (CO_3^{-2})	.03333	Nickel (Ni^{+2})*	.03406
Chloride (Cl^{-1})	.02821	Nitrate (NO_3^{-1})	.01613
Chromium (Cr^{+6})*	.11539	Nitrite (NO_2^{-1})	.02174
Cobalt (Co^{+2})*	.03394	Phosphate (PO_4^{-3})	.03159
Copper (Cu^{+2})*	.03148	Potassium (K^{+1})	.02557
Cyanide (CN^{-1})	.03844	Sodium (Na^{+1})	.04350
Fluoride (F^{-1})	.05264	Strontium (Sr^{+2})*	.02283
Hydrogen (H^{+1})	.99209	Sulfate (SO_4^{-2})	.02082
Hydroxide (OH^{-1})	.05880	Zinc (Zn^{+2})*	.03060

*Constituent reported in micrograms per litre; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per litre to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

Particle-size classification, used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

Pesticides include insecticides and herbicides.

Insecticides are substances or a mixture of substances intended to prevent, destroy, or repel insects.

Technical names for insecticides analyzed are:

Aldrin should contain not less than 95 percent of 1, 2, 3, 4, 10, 10-hexachloro-1, 4, 4a, 5, 8, 8a-hexahydro-1, 4-endoexo-5, 8-dimethanonapthalene.

Chlordane 1, 2, 4, 5, 6, 7, 8, 8-octachloro-3a, 4, 7, 7a-tetrahydro-4, 7-methanoindane.

DDD 1, 1-dichloro-2, 2-bis (p-chlorophenyl) ethane.

DDE 1, 1-dichloro-2, 2-bis (p-chlorophenyl) ethylene.

DDT 1, 1, 1-trichloro-2, 2-bis (p-chlorophenyl) ethane.

Diazinon O, O-diethyl O- (2-isopropyl-4-methyl-6-pyrimidinyl) phosphorothioate.

Dieldrin should contain not less than 85 percent of 1, 2, 3, 4, 10, 10-hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-1, 4-endo, exo-5, 8-dimethanonaphthalene.

Endrin 1, 2, 3, 4, 10, 10-hexachloro-6, 7-epoxy-1, 4, 4a, 5, 6, 7, 8, 8a-octahydro-1, 4-endo-endo-5, 8-dimethanonaphthalene.

Heptachlor 1, 4, 5, 6, 7, 8, 8-heptachloro-3a, 4, 7, 7a-tetrahydro-4, 7-methanoindene.

Heptachlor epoxide 1, 4, 5, 6, 7, 8, 8-heptachloro-2, 3-epoxy-3a, 4, 7, 7a-tetrahydro-4, 7-methanoindan.

Lindane 1, 2, 3, 4, 5, 6-hexachlorocyclohexane, 99 percent or more of gamma isomer.

Methyl parathion O, O-dimethyl O-para-nitrophenyl phosphorothioate.

Malathion S-1, 2-bis (ethoxycarbonyl) ethyl O, O-dimethyl phosphorodithioate.

Parathion O, O-diethyl O-para-nitrophenyl phosphorothioate.

Herbicides are substances or a mixture of substances intended to control or destroy any vegetation.

Technical names for herbicides analyzed are:

2, 4-D 2, 4-dichlorophenoxyacetic acid.

2, 4, 5-T 2, 4, 5-trichlorophenoxyacetic acid.

Silvex 2-(2, 4, 5-trichlorophenoxy-) propionic acid.

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Total sediment discharge or total sediment load is the total quantity of sediment, as measured by dry weight or volume, that is discharged during a given time (Colby and Hembree, 1955). It is the sum of the suspended-sediment discharge and the bedload discharge.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per litre of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio is used to evaluate the suitability of water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimetre at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per litre) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff". Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-feet indicates the dry weight of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per litre by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Turbidity of water is the reduction of transparency due to the presence of suspended particulate matter. Such material may consist of clay or silt, finely divided organic matter, plankton, or other microscopic organisms which cause light to be transmitted in straight lines through the matter.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir. See also table for converting English Units to International Units (SI) on page 19.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual water-supply paper series, "Quality of Surface Water for Irrigation, Western States".

Pesticide program is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide in the early 1930's, there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds of these compounds. Although efforts are being made to substitute many of the chlorinated hydrocarbon pesticides with more specific, fast-acting, and easily degradable compounds, chlorinated hydrocarbon pesticides are still commonly used in many areas of the country.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in ug/l (micrograms per litre), radium as radium-226 in PC/L, (pCi/l, picocuries per litre), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per litre (ug/l). Gross alpha and beta radioactivity associated with the fine grained (silt and clay sized) sediments in the samples are also determined.

A picocurie (PC, pCi) is one trillionth ($1x10^{-12}$) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields $3.7x10^{10}$ radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

DOWNSTREAM ORDER AND STATION NUMBERS

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each water-quality station, gaging station, and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07152500, which appears just to the left of the station name includes the 2-digit part number "07" plus the 6-digit downstream order number "152500". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 7 (Lower Mississippi River basin). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads. Discharge records for streams in Oklahoma have been released in the report, "Water Resources Data for Oklahoma, 1971, Part 1. Surface Water Records."

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Water-quality information is presented for chemical quality, biological, microbiological, water temperature, and fluvial sediment. Cheimical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium adsorption ratio, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnishes information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began to use the metric system; data for chemical constituents and concentrations of suspended sediment are now reported in milligrams per litre (mg/l) and water temperatures are given in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per millimetre), parts per million and milligrams per litre can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per litre. To convert temperature in degrees Celsius to degrees Fahrenheit, see table 3, page 13.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per litre instead of milligrams per litre. (See "Definitions of Terms", p. 4.)

Table 3.--Degrees Celsius (°C)* to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge depending on the source of material and the turbulence and the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute load.

The daily chemical quality data in this report generally represent equal-volume composites for 2- to 15-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

At chemical quality stations where monitors are installed, the records consist of daily maximum, minimum, and mean values for each constituent measured. More detailed records (hourly values) may be obtained from the district office of the U.S. Geological Survey at the address given on page II of this report.

Temperature

Water temperatures are measured at most of the water-quality stations. For daily stations, the water temperatures are taken at about the same time each day when the sample is collected. Large streams have a small diurnal temperature change; shallow streams have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment dicharges for days of rapidly changing flow or concentration were computed by the sub-divided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the sub-divided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

WATER-SUPPLY PAPERS

The annual series of water-supply papers that give information on quality of surface waters in the Lower Mississippi River basin, Part 7, Oklahoma are shown in table 4.

Table 4.--Water-supply paper numbers, water years 1941-71.

Year	WSP	Year	WSP	Year	WSP
1941	942	1951	1199	1961	1884
1942	950	1952	1252	1962	1944
1943	970	1953	1292	1963	1950
1944	1022	1954	1352	1964	1957
1945	1030	1955	1402	1965	1964
1946	1050	1956	1452	1966	1994
1947	1102	1957	1522	1967	2014
1948	1133	1958	1573	1968	2096
1949	1163	1959	1644	1969	A2146
1950	1188	1960	1744	1970	A2156
				1971	A2166

A In press.

SELECTED REFERENCES

American Public Health Association, and others 1971, Standard methods for the examination of water and wastewater, 13th ed.: Am. Public Health Assoc., New York, 874 p.

Brown, Euguene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A1, 160 p.

Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurement of sediment discharge: U.S. Geol. Survey Bull. 1181-A, 47 p.

Colby, B. R., and Hembree, C. H., 1955, Computations of total sediment discharge, Niobrara River near Cody, Nebraska: U.S. Geol. Survey Water-Supply Paper 1357, 187 p.

Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U.S. Geol. Survey Water-Supply Paper 1593, 17 p.

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Hem, J.D., 1970, Study and interpretation of the chemical characteristics of natural water, 2nd edition: U.S. Geological Survey Water-Supply Paper 1473, 363 p.

Langbein, W. B., and Iseri, D. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C3, 33 p.

U.S. Inter-Agency Committee on Water Resources, Subcommittee on Sedimentation, A study of methods used in measurement and analysis of sediment loads in streams. Published by the St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minn.

____ 1941, Methods of analyzing sediment samples: Rept. 4.

____ 1953, Accuracy of sediment size analyses made by the bottom-withdrawal-tube method: Rept. 10.

____ 1957, The development and calibration of visual accumulation tube: Rept. 11.

____ 1957, Some fundamentals of particle size analysis: Rept. 12.

____ 1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.

____ 1961, The single stage sampler for suspended sediment: Rept. 13.

____ 1963, Determinations of fluvial sediment discharge: Rept. 14.

Table 5.--Factors for converting English units to International System (SI) units.

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
	Length	
inches (in)	25.4	millimetres (mm)
	.0254	metres (m)
feet (ft)	.3048	metres (m)
yards (yd)	.9144	metres (m)
rods	5.0292	metres (m)
miles (mi)	1.609	kilometres (km)
	Area	
acres	4047	square metres (m^2)
	.4047	*hectares (ha)
	.4047	square hectometre (hm^2)
	.004047	square kilometres (km^2)
square miles (mi^2)	2.590	square kilometres (km^2)
	Volume	
gallons (gal)	3.785	**litres (l)
	3.785	cubic decimetres (dm^3)
	$3.785\text{x}10^{-3}$	cubic metres (m^3)
million gallons (10^6 gal)	3785	cubic metres (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometres (hm^3)
cubic feet (ft^3)	28.32	cubic decimetres (dm^3)
	.02832	cubic metres (m^3)
cfs-day (ft^3/s-day)	2447	cubic metres (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometres (hm^3)
acre-feet (acre-ft)	1233	cubic metres (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometres (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometres (km^3)
	Flow	
cubic feet per second (ft^3/s)	28.32	litres per second (l/s)
	28.32	cubic decimetres per second (dm^3/s)
	.02832	cubic metres per second (m^3/s)
gallons per minute (gpm)	.06309	litres per second (l/s)
	.06309	cubic decimetres per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic metres per second (m^3/s)
million gallons per day (mgd)	43.81	cubic decimetres per second (dm^3/s)
	.04381	cubic metres per second (m^3/s)
	Mass	
ton (short)	.9072	tonne (t)

*The unit hectare is approved for use with the International System (SI), for a limited time. See NBS Special Bulletin 330, p. 15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

PART 7. LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.
(Irrigation network station)

LOCATION.--Lat 37°03'23", long 97°03'32", in NE1/4NE1/4NE1/4 sec.35, T.34 S., R.3 E., Cowley County, at bridge on Chestnut Street, 0.4 mi (0.6 km) upstream from St. Louis - San Francisco Railway Company bridge, 0.5 mi (0.8 km) upstream from gage on U.S. Highway 166 bridge, 0.5 mi (0.8 km) west of Arkansas City, 5.9 mi (9.5 km) upstream from Walnut River, and at mile 701.9 (1,129.9 km).

DRAINAGE AREA.--43,713 sq mi (113,216.7 km²), of which 7,607 sq mi (19,702.1 km²), is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1951 to current year.
Water temperatures: October 1951 to current year.
Sediment record: September 1961 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.								
01-07	593	260	124	34	140	380	5.6	1.5
08...	1510	230	180	8	140	340	12	4.3
09-13	3750	52	84	0	32	73	5.9	1.3
14...	1880	89	108	0	49	120	8.3	1.7
15...	1350	130	126	2	66	180	8.0	2.0
16-20	939	220	166	4	110	310	9.7	2.3
21-31	678	290	204	8	150	440	9.7	2.9
NOV.								
01-10	515	320	186	32	160	480	6.4	1.8
11-20	451	350	238	8	170	510	9.6	3.6
21-30	431	360	244	6	180	540	10	3.3
DEC.								
01-10	430	360	108	36	180	530	4.8	.41
11-20	497	340	212	20	230	490	9.1	3.0
21-31	498	360	226	16	230	520	11	3.1
JAN.								
01-03	657	340	238	10	210	480	12	3.2
04...	1080	200	182	4	160	290	14	1.7
05-17	485	310	234	8	190	460	15	3.7
18-31	577	340	212	16	170	500	11	3.2
FEB.								
01-10	428	420	248	18	260	600	9.9	1.8
11-20	794	320	268	14	240	440	12	3.6
21-25	720	350	136	4	270	490	2.0	.02
26-28	2440	140	200	0	95	190	9.9	1.8
MAR.								
01-08	2200	220	0	29	140	300	2.4	.00
09-10	2840	140	44	16	130	190	.40	.07
11-20	2150	200	182	2	210	270	9.9	3.4
21-31	992	310	250	0	290	410	12	3.7
APR.								
01-12	641	370	172	38	340	500	2.2	1.0
13-23	591	380	102	30	290	510	.20	.71
24-25	1080	200	164	4	190	280	9.7	3.3
26-28	1170	290	178	14	240	390	1.9	2.4
29-30	1220	180	180	4	130	250	9.7	1.8
MAY								
01-02	982	230	178	12	160	330	5.0	1.4
03-16	671	320	184	16	220	450	3.7	1.4
17-22	544	390	194	10	280	550	5.8	3.7
23...	1440	260	174	0	260	360	11	5.4
24...	2640	140	156	0	120	210	10	4.0
25-28	3580	90	134	0	80	120	6.9	1.5
29-31	1570	120	148	0	92	170	3.6	2.9
JUNE								
01...	1170	200	152	8	140	290	3.7	2.8
02-08	3800	90	128	0	78	120	6.3	3.4
09-13	1710	170	168	0	120	240	7.8	3.0
14...	4350	77	122	0	58	100	8.6	2.8
15-17	6520	43	90	0	41	58	5.8	2.1
18-23	2420	120	144	0	89	180	5.4	2.8
24-30	968	200	190	0	140	290	6.5	3.4
JULY								
01-02	672	230	180	14	160	320	4.6	2.1
03-07	2270	150	160	0	120	210	5.4	2.0
08-11	3720	56	94	0	40	79	5.6	1.4
12-13	1170	120	142	0	79	180	6.8	1.9
14-15	732	190	176	0	130	280	5.6	2.4
16-26	422	270	196	0	170	400	5.0	2.6
27-30	826	170	170	0	100	240	4.0	2.5
31...	1650	96	116	0	66	140	6.7	1.8
AUG.								
01...	2010	120	152	0	84	170	6.0	2.2
02-03	1740	75	104	0	46	110	3.2	1.5
04...	1380	160	146	0	88	220	11	2.6
05-08	1700	75	140	0	48	110	8.0	1.4
09-13	857	160	172	0	92	230	5.2	1.6
14-21	492	270	188	0	140	390	5.6	3.1
22-31	425	280	196	0	140	410	5.2	2.5

ARKANSAS RIVER BASIN

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.
(Irrigation network station)

EXTREMES, Current year.--Dissolved solids: Maximum, 1,720 mg/1 Feb. 1-10; minimum, 255 mg/1 June 15-17.
Hardness: Maximum, 470 mg/1 Apr. 1-12; minimum, 100 mg/1 Oct. 9-13.
Specific conductance: Maximum daily, 3,290 micromhos Feb. 8; minimum daily, 348 micromhos Oct. 13.
Water temperatures: Maximum, 33.0°C Sept. 7; minimum, 0.5°C on several days during November to January.

Period of record.--Dissolved solids: Maximum, 4,090 mg/1 June 2, 1967; minimum 132 mg/1 Aug. 24-31, 1968.
Hardness: Maximum, 760 mg/1 Jan. 16, 1957; minimum, 56 mg/1 Aug. 29-31, 1964.
Specific conductance: Maximum daily, 6,530 micromhos June 2, 1967; minimum daily, 162 micromhos Nov. 17, 1964.
Water temperatures: Maximum, 38.0°C July 25, Aug. 5, 1964; minimum, freezing point on many days during winter months.

REMARKS.--Sediment data for this station published in "Water Resources Data For Kansas, Part 2. Water Quality Records, 1971." Continuous monitor records for water temperature and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-07	984	1.34	1580	280	122	6.8	1690	9.2
08...	970	1.32	3950	300	139	5.8	1630	8.6
09-13	266	.36	2690	100	31	2.3	467	8.1
14...	394	.54	2000	130	41	3.4	659	8.3
15...	538	.73	1960	170	63	4.3	915	8.4
16-20	852	1.16	2160	250	107	6.1	1490	8.5
21-31	1150	1.56	2100	330	149	6.9	1980	8.6
NOV.								
01-10	1280	1.74	1780	380	174	7.1	2170	8.9
11-20	1370	1.86	1670	380	171	7.8	2300	8.5
21-30	1400	1.90	1630	400	190	7.8	2380	8.4
DEC.								
01-10	1310	1.78	1520	320	171	8.8	2270	9.3
11-20	1430	1.94	1920	410	203	7.3	2330	8.8
21-31	1510	2.05	2030	430	218	7.6	2470	8.7
JAN.								
01-03	1370	1.86	2430	400	188	7.4	2260	8.5
04...	922	1.25	2690	300	144	5.0	1480	8.4
05-17	1360	1.85	1780	400	195	6.7	2180	8.4
18-31	1380	1.88	2150	370	169	7.7	2250	8.7
FEB.								
01-10	1720	2.34	1990	460	227	8.5	2750	8.7
11-20	1330	1.81	2850	390	147	7.1	2180	8.8
21-25	1340	1.82	2600	310	192	8.7	2240	8.4
26-28	656	.89	4320	230	66	4.0	1090	8.3
MAR.								
01-08	788	1.07	4680	170	122	7.3	1410	10.0
09-10	556	.76	4260	150	87	5.0	979	9.2
11-20	946	1.29	5490	310	157	4.9	1520	8.4
21-31	1320	1.80	3540	420	215	6.6	2180	8.3
APR.								
01-12	1550	2.11	2680	470	266	7.4	2470	8.9
13-23	1430	1.94	2280	370	236	8.6	2390	9.0
24-25	906	1.23	2640	280	139	5.2	1500	8.4
26-28	1210	1.65	3820	350	181	6.7	2090	8.7
29-30	816	1.11	2690	260	106	4.9	1360	8.5
MAY								
01-02	986	1.34	2610	290	124	5.9	1650	8.5
03-16	1280	1.74	2320	360	182	7.3	2130	8.5
17-22	1530	2.08	2250	400	224	8.5	2540	8.5
23...	1140	1.55	4430	330	187	6.2	1860	8.3
24...	698	.95	4980	240	112	3.9	1180	8.3
25-28	450	.61	4350	170	60	3.0	753	8.2
29-31	574	.78	2430	190	69	3.8	973	8.3
JUNE								
01...	864	1.18	2730	260	122	5.4	1470	8.5
02-08	446	.61	4580	160	55	3.1	764	8.1
09-13	736	1.00	3400	240	102	4.8	1260	7.9
14...	390	.53	4580	140	40	2.8	662	8.0
15-17	255	.35	4490	110	38	1.7	421	7.9
18-23	562	.76	3670	190	72	3.8	953	8.2
24-30	850	1.16	2220	270	114	5.3	1460	8.0
JULY								
01-02	966	1.31	1750	300	129	5.8	1620	8.6
03-07	676	.92	4140	230	99	4.3	1170	8.0
08-11	301	.41	3020	110	33	2.3	510	7.8
12-13	564	.77	1780	180	64	3.9	969	8.2
14-15	834	1.13	1650	260	116	5.1	1430	8.0
16-26	1110	1.51	1260	310	149	6.7	1890	8.0
27-30	704	.96	1570	220	81	5.0	1240	7.8
31...	448	.61	2000	160	65	3.3	772	7.7
AUG.								
01...	575	.78	3120	180	55	3.9	959	8.0
02-03	374	.51	1760	120	35	3.0	630	8.3
04...	678	.92	2530	190	70	5.1	1130	8.1
05-08	405	.55	1860	150	35	2.7	680	8.3
09-13	741	1.01	1710	220	79	4.7	1240	8.1
14-21	1110	1.51	1470	280	126	7.0	1850	8.3
22-31	1140	1.55	1310	290	129	7.2	1900	8.3

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)
SEP.								
01-06	336	310	182	0	170	460	5.0	2.9
07-10	492	200	196	0	120	280	8.1	4.7
11-16	264	310	176	0	160	480	6.5	3.5
17-23	841	200	198	0	100	280	8.6	2.7
24-30	1080	170	176	0	86	240	8.2	2.0
WTD. AVG.	--	196	153	7	137	277	6.9	2.3
TIME WTD. AVG.	1090	266	179	10	173	381	7.3	2.4
TOT. LOAD (TONS)	--	208000	163000	7140	145000	293000	7300	2430

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE (NO2) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)
OCT. 13...	2890	48	78	0	28	74	.80	3.6	--	--	1.3
NOV. 17...	425	360	270	0	180	530	1.2	5.5	.03	.1	.94
DEC. 15...	460	350	272	0	230	510	1.4	6.1	.03	.1	.74
JAN. 19...	540	308	264	0	180	450	1.0	4.6	.01	.0	.70
FEB. 17...	910	300	230	0	230	420	2.7	12	.03	.1	3.0
MAR. 26...	930	318	248	0	320	420	2.1	9.1	.09	.3	1.4
APR. 21...	641	340	190	20	290	470	.00	.00	.00	.0	.99
MAY 19...	518	400	140	40	300	560	.10	.30	.00	.0	3.3
JUNE 17...	5050	41	92	0	31	59	.80	3.3	.00	.0	1.9
JULY 28...	632	200	144	0	100	330	.90	4.1	.04	.1	.72
AUG. 26...	371	280	184	14	150	410	.10	.60	.01	.0	1.1
SEP. 10...	392	210	184	8	120	300	.40	1.6	.06	.2	1.1

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALDRIN (UG/L)	CHLORDANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIAZINON (UG/L)	DIELDRIN (UG/L)
OCT. 29...	.00	.0	.00	.00	.00	.00	.00

DATE	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)
OCT. 29...	.00	.00	.00	.02	.00	.00	.00

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
SEP.								
01-06	1200	1.63	1090	300	151	7.8	2060	8.0
07-10	838	1.14	1110	250	89	5.5	1450	8.3
11-16	1180	1.60	841	320	176	7.5	2050	8.2
17-23	804	1.09	1820	240	78	5.6	1400	8.2
24-30	700	.95	2040	210	66	5.1	1240	7.9
WTD. AVG.	832	1.13	--	250	114	5.1	1400	8.4
TIME WTD. AVG.	1090	1.49	--	313	149	6.4	1830	8.5
TOT. LOAD (TONS)	882000	--	--	--	--	--	--	--

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT. 13...	.03	.09	278	102	38	2.1	422	7.9	10.0	28.0	2.7
NOV. 17...	1.0	3.2	1410	394	173	7.9	2400	8.0	5.5	4.8	2.4
DEC. 15...	1.2	3.6	1430	420	197	7.4	2410	8.2	4.0	3.7	2.1
JAN. 19...	.91	2.8	1230	380	163	6.9	2130	8.0	.0	6.1	3.0
FEB. 17...	.78	2.4	1230	380	191	6.7	2060	7.9	6.0	7.8	6.6
MAR. 26...	.86	2.6	1360	430	230	6.5	2220	7.9	--	4.7	2.2
APR. 21...	1.1	3.3	1370	400	210	7.4	2270	8.8	--	13.0	18
MAY 19...	1.1	3.4	1550	420	238	8.5	2580	9.4	22.5	16.0	15
JUNE 17...	.18	.43	242	96	21	1.8	398	7.8	26.5	37.0	5.6
JULY 28...	.75	2.3	892	240	122	5.6	1480	8.0	28.0	21.0	4.8
AUG. 26...	1.1	3.4	1120	300	126	7.0	1890	8.6	27.5	16.0	10
SEP. 10...	1.7	5.2	854	260	102	5.7	1470	8.4	28.0	14.0	4.2

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT. 13...	420	8.5	10.0	9.8	93
NOV. 17...	2160	8.3	5.5	11.2	95
DEC. 15...	2400	8.1	4.0	11.6	96
JAN. 19...	2700	8.0	.0	12.8	92
FEB. 17...	1990	8.0	6.0	11.1	95
MAR. 26...	2000	8.3	7.0	9.9	86
APR. 21...	2300	8.5	18.0	10.1	112
MAY 19...	2600	9.6	22.5	8.4	100
JUNE 17...	390	7.9	26.5	6.4	80
JULY 28...	1150	8.8	28.0	8.9	119
AUG. 26...	1600	9.2	27.5	7.6	101
SEP. 10...	1400	8.4	28.0	8.6	116

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.--Continued
(Irrigation network station)

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	2140	2280	2220	2630	1430	2250	1630	1460	1650	973	1880
2	1460	2170	2420	2250	2550	1460	2450	1710	748	1610	550	1980
3	1590	2200	2150	2200	2500	1440	2460	1900	752	1170	693	2170
4	1720	2180	2450	1380	2500	1620	2560	1940	850	1330	1120	2110
5	1840	2210	2460	2240	2800	1780	2530	2040	647	1310	593	2050
6	1930	2230	2520	2180	2870	1520	2540	2190	689	909	529	2010
7	1910	2190	2360	2430	2920	567	2540	2180	923	998	783	1350
8	1480	2200	2390	2330	3290	551	2540	2230	759	450	837	1480
9	452	2180	2240	2270	3030	521	2520	2280	1170	452	977	1360
10	498	2330	2280	2180	2680	933	2540	2330	1210	455	1110	1620
11	431	2590	2440	2140	2370	1160	2520	2030	1390	580	1280	1840
12	489	2270	2510	2140	2110	1290	2510	2040	1450	849	1380	1990
13	438	2150	2260	2530	2190	1400	2580	2130	1060	1090	1440	2120
14	615	2380	2360	2290	2270	1590	2610	2410	661	1340	1600	2260
15	841	2400	2310	2260	2070	1500	2600	2320	425	1520	1640	2180
16	1290	2490	2220	2150	2000	1500	2510	2340	399	1790	1740	2160
17	1320	2330	2190	2060	2080	1570	2580	2480	400	1750	1910	1490
18	1420	2220	2350	2040	2340	2010	2630	2580	989	1630	1810	1350
19	1610	2200	2340	2370	2280	1500	2460	2660	989	1650	2100	1350
20	1650	2170	2350	2000	2260	1770	2280	2660	957	1830	2060	1360
21	1780	2250	2380	2300	2450	1820	2270	2600	952	1900	2130	1420
22	1820	2170	2320	2010	2460	1880	2230	2300	981	2040	1560	1420
23	1980	2430	2370	2030	2610	2090	2200	1870	951	1930	1930	1440
24	1890	2480	2570	1980	2420	1970	1670	1170	1220	2090	1900	1070
25	1930	2630	2730	2180	2070	2520	1500	796	1230	2010	2030	1120
26	1760	2560	2680	2060	1450	2250	1880	772	1490	1940	1870	1120
27	1700	2280	2540	2230	1080	2250	2020	749	1500	1540	1730	1230
28	2100	2180	2400	2350	1100	2270	1930	726	1740	1160	2200	1310
29	2110	2170	2230	2830	---	2330	1510	939	1220	1020	2110	1350
30	2090	2530	2170	2540	---	2450	1370	1020	1700	1170	1820	1440
31	2210	---	2250	2560	---	2380	---	1100	---	772	---	---
MONTH	1470	2300	2370	2220	2340	1660	2290	1870	1030	1350	1480	1630

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	11.0	13.0	5.0	---	3.5	---	20.5	---	---	---	28.5
2	24.0	8.5	11.5	4.5	---	3.0	---	20.5	---	---	---	26.0
3	22.5	7.0	12.5	4.0	---	2.5	---	20.0	---	---	---	26.0
4	20.5	8.0	9.0	1.0	---	4.5	---	20.5	25.5	---	---	25.5
5	20.5	9.5	8.5	1.0	---	7.5	---	---	26.5	---	---	26.0
6	22.5	11.5	6.5	1.5	---	7.5	---	---	27.0	---	---	28.5
7	23.0	13.0	6.5	1.0	---	6.5	---	---	26.5	---	---	29.5
8	16.0	14.5	8.0	1.0	---	6.5	---	---	23.5	---	---	29.0
9	13.0	11.5	9.5	1.0	---	7.0	---	---	25.5	---	---	27.5
10	12.0	11.0	12.0	1.5	---	7.5	---	---	26.5	---	---	26.5
11	12.0	10.0	---	---	6.0	10.0	---	---	26.0	---	---	---
12	11.5	9.0	---	---	3.0	11.0	---	---	---	---	---	---
13	13.5	8.5	---	---	2.5	13.0	---	---	---	---	---	---
14	15.0	6.5	5.0	---	5.0	14.5	---	---	---	---	---	---
15	14.5	5.0	5.0	---	7.0	13.0	---	---	---	---	---	---
16	14.0	6.5	4.0	2.0	8.5	13.0	---	---	---	---	---	---
17	13.5	9.0	5.0	3.0	9.5	12.0	---	---	---	---	---	---
18	14.0	9.0	6.5	---	13.0	9.0	---	---	---	---	---	---
19	15.0	9.5	4.0	---	---	6.0	---	---	---	---	---	---
20	16.0	---	2.5	---	---	7.5	---	---	---	---	---	---
21	17.0	10.0	4.0	3.0	---	10.0	22.5	---	---	---	---	20.5
22	19.5	7.5	6.0	3.5	---	10.0	18.5	---	---	---	---	19.0
23	19.0	2.5	3.0	---	---	9.5	18.0	---	---	---	---	18.5
24	17.5	---	2.0	---	---	7.0	19.0	---	---	---	---	18.0
25	18.0	---	1.0	---	---	8.0	20.5	---	---	---	---	19.0
26	17.0	7.5	1.0	2.5	---	10.5	20.0	---	---	---	---	23.0
27	13.5	6.0	2.5	4.5	5.5	13.5	20.5	---	---	---	---	24.5
28	12.0	6.0	2.5	5.0	4.5	15.0	19.5	---	---	---	---	25.0
29	14.5	9.0	3.0	---	---	---	17.0	---	---	---	---	25.0
30	13.5	13.0	5.5	---	---	---	18.0	---	---	---	---	24.0
31	13.0	---	4.5	---	---	---	---	---	---	---	---	---
MONTH	16.5	9.0	6.0	---	---	9.0	---	---	---	---	---	---

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.--Continued
(Irrigation network station)

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	200	280	200	830	130	240	150	130	150	89	170
2	130	200	500	240	710	130	550	160	68	150	50	180
3	150	200	200	200	630	130	570	170	69	110	63	200
4	160	200	550	130	630	150	720	180	78	120	100	190
5	170	200	570	220	1100	160	680	190	59	120	54	190
6	180	200	660	200	1200	140	690	200	59	83	48	180
7	180	200	410	520	1300	52	690	200	84	91	72	120
8	140	200	460	360	1900	50	690	200	69	41	77	140
9	41	200	220	270	1500	48	660	280	110	41	89	120
10	46	360	280	200	910	85	690	360	110	42	100	150
11	39	770	530	200	420	110	660	190	130	53	120	170
12	45	270	640	200	190	120	640	190	130	78	130	180
13	40	200	250	680	200	130	750	200	97	100	130	190
14	56	440	410	300	270	150	800	490	60	120	150	250
15	77	470	330	250	190	140	790	350	39	140	150	200
16	120	610	200	200	180	140	640	380	37	160	160	200
17	120	360	200	190	190	140	750	600	37	160	180	140
18	130	200	390	190	380	180	830	750	87	150	170	120
19	150	200	380	420	280	140	570	880	87	150	190	120
20	150	200	390	180	250	160	280	880	88	170	190	120
21	160	240	440	310	550	170	270	790	87	170	200	130
22	170	200	350	180	570	170	200	310	90	190	140	130
23	180	520	420	190	800	190	200	170	87	180	180	130
24	170	600	740	180	500	180	150	110	110	190	170	98
25	180	830	990	200	190	660	140	73	110	180	190	100
26	160	720	910	190	130	240	170	71	140	180	170	100
27	160	280	690	200	99	240	190	69	140	140	160	110
28	190	200	470	390	100	270	180	66	160	110	200	120
29	190	200	200	1100	---	360	140	86	110	93	190	120
30	190	680	200	690	---	550	130	93	160	110	170	130
31	200	---	240	720	---	440	---	100	---	71	---	---
MONTH	140	350	440	310	580	190	490	290	94	120	140	150

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	301	326	305	1310	957	454	419	422	254	483	154
2	244	300	577	349	1100	829	1060	391	279	287	288	160
3	243	295	231	470	969	647	1080	394	1170	358	233	179
4	239	282	650	368	848	624	1350	375	1090	371	382	183
5	239	277	658	347	1040	659	1220	369	671	628	302	170
6	239	275	736	264	1310	717	1200	372	513	678	244	166
7	237	267	444	630	1040	373	1110	352	604	986	306	138
8	552	266	507	439	1510	430	1150	341	662	520	271	238
9	496	262	276	360	1180	408	1070	453	610	466	278	175
10	352	466	342	269	984	578	1100	586	493	418	277	154
11	511	914	577	287	572	676	1040	358	443	334	251	146
12	475	318	727	271	377	851	988	331	494	283	236	133
13	296	249	308	801	377	927	1130	347	552	269	227	128
14	273	499	513	322	501	1010	1180	850	710	261	232	158
15	280	583	435	305	393	878	1120	579	656	254	222	138
16	363	749	304	239	437	834	932	596	781	265	218	138
17	333	428	308	274	462	772	1130	881	534	254	232	227
18	322	242	602	270	903	839	1280	1070	1020	210	228	301
19	334	241	542	586	702	567	896	1220	720	191	240	295
20	317	271	545	226	657	621	492	1200	459	193	217	298
21	324	296	615	423	1500	611	477	1040	402	168	210	302
22	316	242	478	286	1170	585	354	577	424	161	244	309
23	334	618	600	285	1220	583	366	665	402	167	224	304
24	310	677	1040	284	784	479	483	763	449	171	200	264
25	337	915	1390	311	349	1730	367	765	340	139	239	401
26	362	788	1150	316	455	588	492	803	372	191	188	349
27	302	307	814	366	824	585	624	733	356	237	167	313
28	332	240	579	690	807	652	567	405	357	186	187	311
29	317	235	261	1950	---	822	470	401	218	229	185	316
30	303	797	277	1130	---	1220	396	408	269	324	170	333
31	314	---	342	1170	---	939	---	370	---	315	---	---
MONTH	328	420	553	471	849	742	852	594	549	315	246	229

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.--Continued
(Irrigation network station)

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	270	440	470	460	580	280	470	320	290	330	180	380
2	290	440	520	470	550	290	520	340	130	320	84	400
3	320	450	440	450	[illegible]	280	530	380	130	220	120	440
4	340	450	520	270	540	320	560	390	150	260	210	430
5	370	450	530	460	630	360	550	420	110	250	94	420
6	390	460	540	450	650	300	550	450	110	160	80	410
7	390	450	500	520	660	88	550	450	170	180	140	260
8	290	450	510	490	770	85	550	460	130	62	150	290
9	63	450	460	470	690	78	540	470	220	63	180	260
10	73	490	470	450	590 •	170	550	490	230	63	210	320
11	58	560	520	440	500	220	540	410	270	91	250	370
12	71	470	540	480	430	250	540	420	280	150	270	400
13	60	440	470	550	450	270	560	430	200	200	280	430
14	99	500	500	480	470	320	570	510	110	260	320	470
15	150	510	480	470	420	300	570	490	57	300	330	450
16	250	540	460	440	410	300	540	490	51	360	350	440
17	260	490	450	420	420	310	560	530	51	350	390	290
18	280	460	490	420	490	410	580	560	170	320	360	260
19	320	450	490	500	470	300	530	590	170	330	430	260
20	330	440	490	410	470	360	470	590	180	370	420	260
21	360	470	500	480	520	370	470	570	170	380	430	280
22	370	440	490	410	530	380	460	480	180	420	310	280
23	400	520	500	410	570	430	450	380	170	390	390	280
24	380	530	560	400	520	400	330	220	230	430	380	200
25	390	580	610	450	420	540	300	140	240	410	410	210
26	350	560	590	420	280	470	380	130	290	390	380	210
27	340	470	550	460	200	470	410	130	300	300	350	240
28	430	450	510	490	210	470	390	120	350	220	450	250
29	430	440	460	440	---	490	300	170	230	190	430	260
30	430	550	440	550	---	520	270	190	340	220	370	280
31	450	---	470	560	---	500	---	210	---	130	---	---
MONTH	290	480	500	460	500	330	490	380	190	260	290	330

DISSOLVED CHLORIDE (TONS/DAY), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	553	671	546	684	910	2040	897	909	904	552	967	340
2	522	669	590	689	857	1780	1010	853	523	622	403	355
3	525	659	516	1050	829	1380	1010	869	2190	743	426	400
4	521	629	619	782	726	1350	1040	829	2120	785	785	408
5	525	621	612	729	592	1450	985	820	1200	1320	523	378
6	529	619	606	589	698	1540	956	832	919	1340	403	369
7	523	596	581	629	536	634	882	786	1200	1980	581	292
8	1180	595	563	593	623	723	914	767	1250	787	524	511
9	752	585	581	635	562	668	878	759	1260	707	556	371
10	563	630	573	602	638	1150	879	792	1030	637	569	333
11	753	671	562	640	675	1400	861	795	942	573	528	321
12	753	560	610	604	841	1790	830	735	1060	549	501	295
13	441	555	573	648	843	1970	840	773	1120	550	486	285
14	480	570	624	515	883	2190	841	894	1280	552	503	294
15	543	629	637	568	873	1890	810	814	958	547	482	309
16	765	658	683	533	969	1790	783	777	1090	582	477	308
17	702	579	689	609	1030	1670	840	786	747	556	511	487
18	686	544	758	600	1180	1860	884	796	2030	456	502	630
19	724	539	707	691	1180	1220	834	813	1430	416	534	626
20	690	605	686	501	1220	1360	825	799	915	424	483	631
21	709	583	703	686	1430	1340	881	751	801	370	468	685
22	695	540	672	635	1090	1290	795	880	850	358	526	659
23	739	618	707	633	865	1300	819	1470	800	369	494	650
24	683	603	784	628	803	1060	1050	1580	937	382	442	539
25	765	633	848	695	776	1430	788	1460	711	307	530	825
26	793	606	747	703	973	1160	1090	1520	798	423	413	717
27	659	514	647	823	1600	1160	1380	1370	764	511	365	654
28	739	535	625	868	1650	1150	1250	753	780	385	418	656
29	707	526	586	1080	---	1110	1010	797	454	463	412	670
30	675	645	619	901	---	1160	841	825	587	671	374	711
31	704	---	675	899	---	1070	---	758	---	595	---	---
MONTH	664	599	642	690	926	1390	922	915	1060	630	509	489

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KANS.--Continued
(Irrigation network station)

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	806	1290	1390	1350	1630	840	1370	957	857	969	571	1110
2	857	1310	1490	1370	1580	857	1510	1000	439	945	323	1180
3	934	1340	1300	1340	1540	845	1510	1130	442	687	407	1310
4	1010	1320	1510	810	1540	951	1580	1160	499	781	658	1270
5	1090	1340	1510	1360	1750	1050	1560	1220	380	769	368	1230
6	1150	1360	1560	1320	1800	892	1570	1330	381	534	311	1200
7	1130	1330	1450	1490	1830	333	1570	1320	542	586	460	793
8	869	1340	1470	1420	2090	324	1570	1360	446	264	491	869
9	265	1320	1360	1380	1910	306	1560	1390	687	265	574	798
10	292	1420	1390	1320	1670	548	1570	1420	710	267	652	951
11	253	1600	1500	1290	1450	681	1560	1220	816	341	752	1090
12	287	1380	1550	1290	1270	757	1550	1220	851	498	810	1190
13	257	1300	1380	1560	1330	822	1600	1290	622	640	845	1280
14	361	1460	1450	1400	1380	934	1620	1480	388	787	939	1380
15	494	1470	1410	1380	1250	881	1610	1420	250	892	963	1320
16	757	1540	1350	1300	1200	881	1550	1430	234	1050	1020	1310
17	775	1420	1330	1240	1250	922	1600	1530	235	1030	1130	875
18	874	1350	1440	1220	1430	1200	1630	1600	557	957	1070	793
19	[illegible]	1340	1430	1450	1390	881	1510	1650	557	969	1270	793
20	[illegible]	1310	1440	1200	1380	1040	1390	1650	562	1080	1240	798
21	1050	1370	1460	1400	1510	1070	1380	1610	559	1130	1290	834
22	1070	1310	1420	1200	1510	1110	1360	1400	576	1220	916	834
23	1180	1490	1450	1220	1620	1260	1340	1110	558	1150	1150	845
24	1120	1530	1590	1180	1490	1180	980	687	716	1260	1130	628
25	1150	1630	1700	1320	1250	1560	881	467	722	1200	1220	658
26	1030	1580	1670	1240	851	1370	1110	453	875	1160	1110	658
27	998	1390	1570	1360	634	1370	1210	440	881	904	1020	722
28	1270	1320	1470	1440	646	1380	1150	426	1020	681	1340	769
29	1270	1310	1360	1770	---	1420	887	551	716	599	1270	793
30	1260	1560	1310	1570	---	1510	804	599	998	687	1070	845
31	1340	---	1370	1580	---	1460	---	646	---	453	---	---
MONTH	873	1400	1450	1350	1430	988	1400	1130	603	798	878	971

DISSOLVED SOLIDS (TONS/DAY), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	1990	1600	2020	2580	6140	2640	2690	2710	1630	3100	998
2	1560	1980	1710	2030	2440	5320	2900	2510	1790	1840	1850	1050
3	1560	1950	1530	3120	2380	4150	2900	2550	7500	2300	1490	1190
4	1530	1870	1780	2360	2080	4010	2960	2440	7020	2380	2450	1210
5	1540	1840	1760	2150	1650	4230	2820	2420	4310	4030	1940	1120
6	1560	1830	1740	1750	1940	4600	2730	2470	3290	4350	1570	1090
7	1540	1770	1570	1820	1480	2390	2520	2330	3880	6330	1960	884
8	3540	1770	1630	1730	1690	2760	2610	2270	4250	3340	1740	1530
9	3180	1730	1710	1870	1550	2620	2510	2230	3910	2990	1780	1120
10	2260	1840	1680	1780	1800	3710	2510	2310	3160	2680	1780	986
11	3280	1910	1620	1900	1960	4340	2460	2350	2840	2140	1610	941
12	3050	1650	1750	1790	2490	5460	2380	2170	3170	1820	1510	871
13	1900	1640	1690	1850	2500	5950	2390	2290	3550	1720	1460	843
14	1750	1660	1820	1510	2600	6500	2390	2590	4560	1670	1490	868
15	1800	1820	1860	1670	2580	5640	2300	2380	4210	1630	1420	917
16	2330	1880	2020	1580	2860	5350	2240	2270	5010	1700	1400	914
17	2130	1690	2040	1800	3040	4950	2390	2260	3420	1630	1500	1450
18	2060	1610	2210	1770	3430	5490	2500	2260	6560	1350	1470	1930
19	2140	1600	2060	2010	3450	3640	2400	2300	8620	1230	1580	1900
20	2040	1790	2000	1480	3600	3980	2420	2260	2940	1240	1430	1910
21	2080	1720	2040	1890	4110	3940	2470	2130	2580	1090	1390	1940
22	2040	1600	1960	1880	3130	3790	2350	2580	2720	1060	1560	1980
23	2180	1780	2060	1870	2460	3840	2430	4300	2580	1090	1450	1950
24	2010	1730	2230	1850	2320	3120	3100	4900	2880	1130	1300	1700
25	2190	1790	2380	2060	2290	4090	2350	4910	2180	907	1560	2570
26	2320	1730	2110	2080	2920	3420	3190	5150	2390	1240	1210	2240
27	1940	1510	1850	2430	5290	3410	4090	4700	2280	1520	1070	2010
28	2190	1590	1810	2530	5180	3380	3690	2600	2290	1200	1240	2000
29	2090	1560	1730	3010	---	3240	3020	2580	1400	1470	1220	2030
30	2000	1840	1830	2570	---	3340	2540	2620	1730	2080	1180	2130
31	2090	---	1990	2560	---	3120	---	2370	---	2020	---	---
MONTH	2110	1760	1860	2020	2710	4190	2670	2780	3520	2030	1590	1480

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OKLA.

LOCATION.--Lat 36°45'11", long 98°07'44", in NE1/4NE1/4 sec.11, T.26 N., R.9 W., Alfalfa County, at gaging station at bridge on county road, 0.6 mi (1.0 km) downstream from Great Salt Plains Dam, 4.0 mi (6.9 km) upstream from Wagon Creek, 6.0 mi (9.6 km) northeast of Jet, and at mile 102.7 (165.2 km).

DRAINAGE AREA.--3,202 sq mi (8,293.2 km²), of which 8.0 sq mi (20.7 km²) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
05...	3.3	3900	88	0	700	5800	--	10900
12...	4.0	3300	120	6	590	5100	--	9480
19...	3.8	4000	148	4	660	6000	--	11200
26...	5.1	4000	164	0	700	6100	--	11400
NOV.								
02...	3.7	3400	86	0	640	5200	--	9510
09...	22	3000	86	0	580	4600	.70	8450
16...	1.2	3600	116	0	660	5500	--	10200
23...	1.5	3500	112	0	660	5400	--	10000
30...	4.0	3200	114	0	585	4900	.20	9120
DEC.								
07...	6.5	3100	166	0	610	4600	1.1	8740
14...	17	3000	170	0	600	4600	2.0	8560
21...	29	3000	174	0	580	4500	1.8	8480
28...	23	2800	178	0	560	4300	1.6	8100
JAN.								
04...	107	2900	96	0	480	4400	1.2	8550
11...	32	3200	172	2	540	4800	2.0	9270
18...	38	3400	92	2	520	5200	--	9810
25...	94	2900	116	0	500	4400	.50	8550
FEB.								
01...	57	2800	124	2	460	4200	.50	7990
08...	83	2700	172	4	470	4100	1.2	8010
15...	107	2800	162	4	480	4200	2.0	8160
23...	152	2700	170	2	450	4000	1.7	7780
MAR.								
01...	280	2800	160	2	450	4200	.70	7870
08...	236	2700	164	6	420	4000	1.7	7660
15...	340	2200	172	4	410	3300	2.2	6030
22...	136	2200	180	4	480	3200	2.2	6390
29...	159	2200	180	4	430	3300	2.0	6520
APR.								
05...	51	2200	192	0	440	3300	2.5	6610
12...	69	2100	176	4	440	3100	2.0	6090
19...	24	2300	188	0	480	3400	2.0	6860
26...	135	2500	178	0	450	3700	1.5	7130
MAY								
03...	117	2200	76	2	510	3400	.40	6390
10...	57	2300	118	4	540	3500	2.6	6740
17...	28	2300	92	2	540	3500	.60	6660
24...	7.8	3000	152	2	650	4600	.60	8680
31...	6.5	3100	162	4	650	4800	1.9	9040
JUNE								
07...	490	2400	38	0	460	3600	.40	6910
14...	420	2300	136	0	470	3400	.90	6750
21...	240	2100	37	0	450	3100	.10	6140
28...	67	2300	136	4	460	3500	.70	6760
JULY								
05...	188	2400	114	0	440	3600	2.1	6960
12...	57	2300	112	0	460	3500	3.1	6820
19...	270	2600	116	0	490	4000	2.6	7580
26...	5.1	3200	100	0	570	4900	3.1	9480
AUG.								
02...	10	3000	110	0	560	4600	.40	8720
09...	4.5	3000	100	18	560	4600	.70	8750
16...	5.1	3300	108	0	590	5100	--	9610
23...	20	3100	104	0	560	4700	1.6	8980
30...	9.3	3500	122	0	600	5300	--	9970
SEP.								
06...	4.0	4000	104	0	680	6100	--	11300
13...	3.5	3800	142	8	680	5900	--	11400
20...	1.2	4000	152	4	700	6200	--	11600
27...	.43	4700	124	0	760	7300	--	13400

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1953 to September 1959, water years 1960-61 (partial-record station), October 1961 to September 1963, July 1968 to current year.
Water temperatures: October 1954 to September 1955, October 1957 to September 1959, October 1961 to September 1963, July 1968 to current year.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
05...	14.8	97.1	760	688	62	17300	8.1
12...	12.9	102	740	632	53	14500	8.5
19...	15.2	115	820	692	61	17600	8.5
26...	15.5	157	840	705	60	15900	8.3
NOV.							
02...	12.9	95.0	710	639	56	15500	8.0
09...	11.5	502	640	569	52	14000	8.0
16...	13.9	33.0	760	665	57	16400	8.2
23...	13.6	40.5	740	653	56	16400	8.1
30...	12.4	98.5	710	616	52	14800	8.2
DEC.							
07...	11.9	153	710	574	51	14200	8.3
14...	11.6	393	740	601	48	14200	8.3
21...	11.5	664	720	577	49	13900	8.3
28...	11.0	503	720	574	45	13200	8.3
JAN.							
04...	11.6	2470	620	541	51	13700	8.1
11...	12.6	801	710	566	52	14700	8.4
18...	13.3	1010	650	571	58	15600	8.4
25...	11.6	21.7	620	525	51	13700	8.2
FEB.							
01...	10.9	1230	610	505	49	13100	8.4
08...	10.9	1800	660	512	46	13000	8.5
15...	11.1	2360	640	500	48	13300	8.4
23...	10.6	3190	630	487	47	12600	8.4
MAR.							
01...	10.7	5950	600	465	50	12800	8.4
08...	10.4	4880	600	459	48	12600	8.4
15...	8.78	5900	590	442	39	10600	8.4
22...	8.69	2350	600	446	39	10400	8.4
29...	8.87	2800	610	456	39	10700	8.4
APR.							
05...	8.99	910	650	492	38	10800	8.1
12...	8.28	1130	620	469	37	10100	8.4
19...	9.33	444	660	506	39	11000	8.3
26...	9.70	2600	640	494	43	11600	8.2
MAY							
03...	8.69	2020	580	510	40	10600	8.4
10...	9.17	1040	640	540	40	11100	8.5
17...	9.06	432	630	550	40	11100	8.8
24...	11.8	183	790	660	46	14000	8.4
31...	12.3	159	820	680	47	14600	8.4
JUNE							
07...	9.48	9140	540	510	45	11200	7.8
14...	9.18	7650	590	480	41	10900	8.3
21...	8.35	3980	490	460	41	10000	7.9
28...	9.19	1220	600	480	41	10900	8.4
JULY							
05...	40.3	15000	580	490	43	11200	8.0
12...	9.28	1050	580	490	42	10800	7.9
19...	10.3	5520	620	530	45	12100	7.6
26...	12.9	130	710	630	52	15000	7.9
AUG.							
02...	11.9	235	660	570	51	14000	8.3
09...	11.9	186	670	560	50	14100	8.7
16...	13.1	132	720	630	54	15100	8.1
23...	12.2	485	680	600	52	14200	7.7
30...	13.6	250	740	640	56	15900	8.2
SEP.							
06...	15.4	122	820	740	61	17500	8.2
13...	15.5	108	840	710	57	17800	8.6
20...	15.8	37.6	870	740	59	18100	8.4
27...	18.2	15.6	940	840	67	20700	8.1

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16400	16900	14400	13500	13100	12700	10200	10500	13300	10600	---	17000
2	16300	15800	14700	13600	13300	13000	10500	11100	15700	10700	14000	18100
3	16650	15400	14100	13700	13300	12900	9760	10700	12400	10800	14700	18700
4	17000	13600	14200	13700	13400	12700	10400	11500	12400	11100	14800	18800
5	17300	16700	15200	14100	12900	12600	10700	11100	13600	11400	15000	18600
6	17300	16200	14800	14300	13000	11500	10700	10700	8940	11800	15100	18000
7	16900	16900	14300	---	13000	11800	11100	10400	7890	11800	14600	18400
8	14200	16200	14200	---	13000	12400	10100	10800	11200	11600	15400	17700
9	14600	14200	15000	---	13000	12700	10200	11100	10300	11600	14100	17600
10	14500	14900	14400	---	13400	11500	10700	11100	13600	11600	15100	17800
11	14500	16300	13700	14700	14000	11300	11200	11000	10300	11700	15500	18300
12	14500	17500	14000	14600	13900	12200	10800	11400	8960	11000	15100	18500
13	15800	17600	14100	14700	13500	12300	11700	11500	8230	11500	14700	18200
14	16600	17700	14300	---	13400	11600	11200	11500	11000	10800	14200	17000
15	17600	16800	14200	14800	13500	10600	11200	11300	9620	13600	14800	17800
16	17800	16300	13500	---	13300	9980	11300	11200	10200	11900	20000	18500
17	17700	16500	12000	---	13500	9660	10700	11200	11400	13500	13900	18800
18	17600	16800	13000	15600	13500	10000	11000	11500	10200	14800	15900	16700
19	17600	18300	13300	15100	11600	10300	11000	11500	9400	12300	15900	17300
20	19300	16700	13600	15400	14000	10300	10900	12200	9580	16600	15900	17900
21	18300	---	13900	15400	14700	10100	10400	12100	9780	15100	16300	18400
22	17900	---	14200	14800	13200	10400	11400	13100	9840	9890	16700	19400
23	17800	15300	14000	---	13700	11200	12100	13100	7610	13800	15600	20800
24	---	15400	13900	---	12400	11300	11300	13600	7970	14000	15400	18700
25	---	15200	---	13700	12500	11300	11100	12600	8950	14900	16400	17600
26	15900	14900	---	13100	12100	10100	11400	15200	9980	15000	17000	19400
27	15200	14500	---	12800	12500	11000	11600	16400	10200	14500	17300	21200
28	14700	14200	13200	13300	12700	11000	11800	15000	10600	12500	17300	21500
29	16000	14500	13200	12900	---	10700	11600	15300	11400	13200	17900	18900
30	16400	15100	13600	13000	---	9730	11200	15200	9690	12900	16200	18300
31	16900	---	13400	13000	---	10100	---	14200	---	13000	17600	---
MONTH	16530	15940	13940	---	13190	11260	10980	12230	10470	12560	15750	18460

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.5	8.0	---	3.5	5.5	13.5	19.5	25.0	---	---	29.0
2	---	10.0	8.0	---	---	4.5	13.0	20.0	24.0	---	---	29.0
3	---	9.5	9.5	---	---	3.0	12.0	19.0	20.5	---	---	28.5
4	---	8.5	8.5	---	---	4.0	11.0	19.0	---	---	---	27.5
5	---	10.0	8.5	---	---	5.0	11.0	20.0	---	---	---	27.5
6	---	10.5	8.0	---	---	5.5	11.0	21.0	---	---	---	29.5
7	---	12.0	8.0	---	---	5.5	11.0	22.0	---	---	---	30.5
8	---	12.0	8.5	---	---	6.5	12.5	21.5	---	---	---	29.5
9	---	11.0	8.0	---	---	6.5	13.5	19.5	---	---	---	28.5
10	---	11.5	9.0	---	1.0	7.5	14.5	20.0	---	---	28.0	30.0
11	---	10.0	6.5	---	1.5	9.0	16.0	20.0	---	---	28.0	29.5
12	---	10.5	6.5	---	1.5	8.5	18.0	19.0	---	---	28.0	28.0
13	---	9.5	6.5	---	2.0	10.5	16.0	19.0	---	---	28.0	27.5
14	---	6.5	5.5	---	2.5	12.0	16.5	20.0	---	29.5	26.5	28.0
15	---	7.0	---	---	3.5	11.5	17.0	21.0	---	29.0	26.5	21.5
16	---	7.5	---	---	4.5	12.0	17.5	21.5	---	29.5	28.0	18.5
17	---	9.5	---	---	5.5	12.0	17.5	22.0	29.5	---	29.0	15.5
18	---	10.5	---	---	7.5	10.5	17.5	21.0	28.0	---	29.0	13.5
19	---	11.0	---	---	9.0	7.5	18.5	20.5	27.0	---	27.5	15.0
20	---	---	---	---	7.5	6.5	18.0	21.0	26.0	---	27.5	17.0
21	---	---	---	---	2.5	7.5	17.5	21.0	27.0	---	28.0	19.0
22	---	---	---	---	0.5	8.0	16.0	23.5	28.0	---	28.0	19.5
23	---	5.0	---	---	1.5	8.0	16.0	24.5	29.5	---	29.5	17.5
24	---	5.0	---	---	1.0	7.0	17.5	22.0	29.5	---	29.0	17.0
25	---	4.5	---	---	2.5	7.0	17.5	24.0	26.5	---	30.5	20.0
26	---	6.5	---	---	4.5	8.0	18.0	24.0	27.0	---	31.0	24.0
27	---	6.5	---	---	6.5	9.5	18.5	20.5	26.0	---	31.0	25.5
28	---	7.0	---	---	6.5	12.0	18.0	21.5	27.0	---	29.0	25.5
29	13.5	8.0	---	6.0	---	12.5	17.0	21.5	25.5	---	27.5	25.0
30	12.5	9.0	---	6.0	---	13.5	17.0	22.5	25.0	---	27.5	23.5
31	11.5	---	---	3.5	---	14.0	---	25.0	---	---	28.5	---
MONTH	---	9.0	---	---	---	8.5	15.5	21.0	---	---	---	24.0

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	640	650	570	540	520	510	420	430	530	440	---	660
2	630	620	580	540	530	520	430	450	610	440	550	700
3	650	600	560	540	530	520	410	440	500	440	580	710
4	660	540	560	540	530	510	430	470	500	450	580	710
5	670	650	600	560	520	500	440	450	540	460	590	710
6	670	630	580	560	520	470	440	440	400	480	590	690
7	650	650	560	---	520	480	450	430	400	480	570	710
8	560	630	560	---	520	500	420	440	460	470	600	680
9	570	560	590	---	520	510	420	450	420	470	560	680
10	570	590	570	---	530	470	440	450	540	470	590	690
11	570	630	540	580	550	460	460	450	420	470	610	700
12	570	680	550	570	550	490	440	460	400	450	590	710
13	620	680	560	580	540	490	470	470	400	470	580	700
14	640	680	560	---	530	470	460	470	450	440	560	660
15	680	650	560	580	540	440	460	460	400	540	580	690
16	690	630	540	---	530	410	460	460	420	480	730	710
17	680	640	480	---	540	400	440	460	460	540	550	710
18	680	650	520	610	540	410	450	470	420	580	620	650
19	680	700	530	590	470	420	450	470	400	490	620	670
20	720	650	540	600	550	420	450	490	400	640	620	690
21	700	---	550	600	580	420	430	490	410	590	630	710
22	690	---	560	580	530	430	460	520	410	410	650	720
23	690	600	550	---	540	460	490	520	400	550	610	740
24	---	600	550	---	500	460	460	540	400	550	600	710
25	---	600	---	540	500	460	450	500	400	590	640	680
26	620	590	---	520	490	420	460	600	410	590	660	720
27	600	570	---	510	500	450	470	640	420	570	670	740
28	580	560	530	530	510	450	480	590	440	500	670	750
29	620	570	530	520	---	440	470	600	460	530	690	720
30	640	590	540	520	---	410	460	600	400	520	630	700
31	650	---	530	520	---	420	---	560	---	520	680	---
MONTH	640	620	550	---	530	460	450	490	440	500	610	700

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.5	15	32	70	355	128	228	7.3	175	---	7.1
2	6.0	9.3	15	10	63	302	116	162	28	218	15	7.0
3	7.3	18	38	158	64	348	101	141	340	278	11	5.6
4	5.3	12	15	149	170	350	39	151	458	220	8.3	5.8
5	5.1	5.8	5.0	93	124	362	60	205	702	221	7.6	8.6
6	4.5	4.6	9.1	79	112	307	67	111	572	255	56	8.4
7	4.2	5.3	18	---	137	322	107	102	534	237	6.2	7.6
8	8.9	95	13	---	123	286	81	62	865	179	11	31
9	8.2	41	9.4	---	102	376	33	39	865	194	8.9	8.8
10	5.1	3.9	63	---	102	331	52	60	1000	117	7.0	8.3
11	6.3	9.7	28	53	112	336	98	75	715	106	9.0	9.5
12	6.2	4.6	14	50	128	358	81	31	583	64	6.4	8.4
13	6.0	5.1	15	47	117	402	17	44	552	35	7.0	7.6
14	7.1	6.4	29	---	144	435	23	45	522	21	7.7	28
15	8.1	2.3	18	46	149	392	33	33	420	13	8.0	9.3
16	11	2.1	93	---	166	321	25	28	388	53	8.8	6.3
17	7.6	3.5	63	---	148	292	20	47	406	8.0	7.6	9.4
18	7.0	4.9	84	64	159	567	42	35	331	9.4	9.0	11
19	6.6	12	47	56	396	293	69	18	256	33	9.7	4.5
20	6.4	9.1	39	59	103	230	147	13	292	7.1	7.5	3.5
21	6.8	---	49	68	226	178	112	9.2	260	5.8	7.7	3.8
22	7.3	---	70	71	487	148	62	6.6	281	48	9.8	4.1
23	7.2	5.0	54	---	249	159	104	18	285	7.4	69	4.4
24	---	7.0	49	---	188	140	115	25	300	6.0	8.0	7.9
25	---	5.0	---	107	185	192	133	3.1	247	5.5	8.4	2.7
26	16	11	---	76	381	167	169	4.2	205	7.6	8.7	1.5
27	10.0	2.6	---	83	371	198	243	11	173	4.8	8.1	1.5
28	6.1	1.5	34	90	322	130	187	5.2	109	26	9.9	1.7
29	6.4	4.6	37	100	---	188	175	5.2	105	13	10	41
30	6.7	30	89	69	---	204	220	9.6	59	24	16	3.4
31	8.3	---	43	53	---	209	---	15	---	20	12	---
MONTH	7.2	12	38	---	182	286	95	56	395	84	13	8.9

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5500	5700	4700	4300	4200	4000	3000	3100	4200	3200	---	5700
2	5400	5200	4800	4400	4200	4100	3100	3400	5200	3200	4500	6100
3	5600	5100	4600	4400	4200	4100	2900	3200	3900	3300	4800	6400
4	5700	4400	4600	4400	4300	4000	3100	3500	3900	3400	4800	6400
5	5800	5600	5000	4600	4100	4000	3200	3400	4400	3500	4900	6300
6	5800	5400	4800	4600	4100	3500	3200	3200	2500	3700	4900	6100
7	5700	5700	4600	---	4100	3700	3400	3100	2200	3700	4700	6200
8	4600	5400	4600	---	4100	3900	3000	3300	3400	3600	5100	6000
9	4700	4600	4900	---	4100	4000	3000	3400	3100	3600	4600	5900
10	4700	4900	4700	---	4300	3500	3200	3400	4400	3600	4900	6000
11	4700	5400	4400	4800	4500	3500	3400	3300	3100	3600	5100	6200
12	4700	5900	4500	4700	4500	3800	3300	3500	2500	3300	4900	6300
13	5200	5900	4600	4800	4300	3800	3600	3500	2300	3500	4800	6200
14	5500	6000	4600	---	4300	3600	3400	3500	3300	3300	4600	5700
15	5900	5600	4600	4800	4300	3200	3400	3500	2800	4400	4800	6000
16	6000	5400	4300	---	4200	2900	3500	3400	3000	3700	6900	6300
17	6000	5500	3700	---	4300	2800	3200	3400	3500	4300	4500	6400
18	5900	5600	4100	5100	4300	2900	3300	3500	3000	4800	5300	5600
19	5900	6200	4200	4900	3600	3100	3300	3500	2700	3800	5300	5800
20	6600	5600	4400	5100	4500	3100	3300	3800	2800	5500	5300	6000
21	6200	---	4500	5100	4800	3000	3100	3800	2900	4900	5400	6200
22	6000	---	4600	4800	4200	3100	3500	4200	2900	2900	5600	6600
23	6000	5000	4500	---	4400	3400	3800	4200	2100	4400	5100	7200
24	---	5100	4500	---	3900	3500	3500	4400	2200	4500	5100	6400
25	---	5000	---	4400	3900	3500	3400	4000	2500	4900	5500	5900
26	5300	4900	---	4200	3800	3000	3500	5000	2900	4900	5700	6600
27	5000	4700	---	4000	3900	3300	3600	5500	3000	4700	5800	7300
28	4800	4600	4200	4200	4000	3300	3700	4900	3200	3900	5800	7500
29	5300	4700	4200	4100	---	3200	3600	5000	3500	4200	6000	6400
30	5500	4900	4400	4100	---	2800	3400	5000	2800	4100	5400	6200
31	5700	---	4300	4100	---	3000	---	4600	---	4100	5900	---
MONTH	5500	5300	4500	---	4200	3400	3300	3800	3100	4000	5200	6300

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	56	126	256	562	2800	923	1660	58	1280	---	61
2	51	79	128	84	504	2400	849	1210	238	1600	122	61
3	63	150	307	1280	515	2760	709	1030	2660	2050	92	50
4	46	93	123	1210	1360	2760	285	1150	3580	1640	69	52
5	44	50	42	762	981	2850	444	1530	5670	1670	64	77
6	39	39	76	650	890	2330	496	817	3630	1950	467	74
7	37	46	150	---	1090	2470	803	737	2940	1810	51	67
8	73	813	109	---	979	2240	580	458	6490	1360	89	274
9	68	335	78	---	812	2960	237	292	6250	1480	73	77
10	42	33	517	---	820	2510	383	447	8120	888	59	73
11	52	83	226	440	914	2530	738	559	5160	810	76	84
12	51	40	115	410	1040	2780	599	236	3710	478	53	75
13	51	45	123	388	944	3130	127	334	3190	267	58	67
14	61	56	238	---	1160	3310	175	344	3890	158	63	246
15	70	20	149	378	1200	2870	249	252	2930	104	66	81
16	99	18	746	---	1330	2290	187	212	2790	409	83	56
17	66	30	483	---	1190	2040	148	351	3070	64	62	85
18	61	42	668	541	1280	4030	315	267	2380	78	77	92
19	58	107	378	467	3010	2120	514	134	1740	260	82	39
20	59	78	318	492	841	1660	1090	98	2030	61	64	31
21	60	---	399	574	1870	1270	813	71	1830	48	66	34
22	64	---	570	587	3890	1070	472	53	1990	337	84	38
23	63	42	439	---	2020	1190	804	146	1510	60	583	43
24	---	59	399	---	1470	1050	868	200	1680	49	67	70
25	---	42	---	867	1450	1450	994	25	1570	46	72	24
26	132	92	---	607	2950	1190	1270	35	1460	64	75	14
27	83	22	---	655	2900	1470	1850	97	1240	39	71	15
28	50	12	272	721	2540	965	1430	44	799	201	86	17
29	54	38	295	794	---	1380	1330	43	793	103	91	365
30	57	254	718	545	---	1430	1650	81	412	187	136	30
31	72	---	347	423	---	1490	---	119	---	156	107	---
MONTH	61	99	305	---	1450	2150	711	421	2790	636	107	79

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10290	10640	8920	8370	8120	7870	6320	6510	8240	6570	---	10710
2	10220	9860	9110	8430	8240	8060	6510	6880	9790	6630	8680	11490
3	10460	9580	8740	8490	8240	7990	6050	6630	7680	6690	9110	11920
4	10710	8430	8800	8490	8300	7870	6440	7130	7680	6880	9170	11990
5	10930	10500	9440	8740	7990	7810	6630	6880	8430	7060	9300	11850
6	10930	10150	9170	8860	8060	7130	6630	6630	5540	7310	9370	11420
7	10640	10640	8860	---	8060	7310	6880	6440	4890	7310	9050	11710
8	8800	10150	8800	---	8060	7680	6260	6690	6940	7190	9580	11210
9	9050	8800	9300	---	8060	7870	6320	6880	6380	7190	8740	11140
10	8990	9230	8920	---	8300	7130	6630	6880	8430	7190	9370	11280
11	8990	10220	8490	9110	8680	7000	6940	6820	6380	7250	9650	11630
12	8990	11070	8680	9050	8610	7560	6690	7060	5550	6820	9370	11780
13	9860	11140	8740	9110	8370	7620	7250	7130	5100	7130	9110	11560
14	10430	11210	8860	---	8300	7190	6940	7130	6820	6690	8800	10710
15	11140	10570	8800	9170	8370	6570	6940	7000	5960	8430	9170	11280
16	11280	10220	8370	---	8240	6180	7000	6940	6320	7370	12840	11780
17	11210	10360	7440	---	8370	5990	6630	6940	7060	8370	8610	11990
18	11140	10570	8060	9720	8370	6200	6820	7130	6320	9170	9930	10500
19	11140	11630	8240	9370	7190	6380	6820	7130	5820	7620	9930	10930
20	12340	10500	8430	9580	8680	6380	6750	7560	5940	10430	9930	11350
21	11630	---	8610	9580	9110	6260	6440	7500	6060	9370	10220	11710
22	11350	---	8800	9170	8180	6440	7060	8120	6100	6130	10500	12410
23	11280	9510	8680	---	8490	6940	7500	8120	4720	8550	9720	13410
24	---	9580	8610	---	7680	7000	7000	8430	4940	8680	9580	11920
25	---	9440	---	8490	7750	7000	6880	7810	5550	9230	10290	11140
26	9930	9230	---	8120	7500	6260	7060	9440	6180	9300	10710	12410
27	9440	8990	---	7930	7750	6820	7190	10290	6320	8990	10930	13690
28	9110	8800	8180	8240	7870	6820	7310	9300	6570	7750	10930	13900
29	10000	8990	8180	7990	---	6630	7190	9510	7060	8180	11350	12060
30	10290	9370	8430	8060	---	6030	6940	9440	6000	7990	10150	11630
31	10640	---	8300	8060	---	6260	---	8800	---	8060	11140	---
MONTH	10390	9980	8640	---	8180	6980	6800	7580	6490	7790	9840	11750

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	106	241	497	1100	5500	1930	3440	113	2640	---	116
2	97	149	243	162	979	4700	1760	2470	449	3290	234	115
3	119	284	590	2480	1000	5400	1500	2130	5250	4210	175	93
4	87	180	235	2340	2650	5420	592	2310	7070	3340	131	97
5	83	94	79	1460	1920	5610	913	3120	10970	3380	120	144
6	74	74	144	1240	1740	4690	1020	1680	7930	3910	885	139
7	69	86	287	---	2130	4940	1630	1530	6520	3630	98	126
8	140	1530	209	---	1910	4420	1220	940	13170	2740	168	515
9	129	641	148	---	1590	5820	495	594	13010	2970	139	144
10	80	62	988	---	1590	5060	788	910	15700	1790	111	137
11	99	157	436	836	1760	5120	1500	1140	10750	1620	143	157
12	97	75	220	782	2000	5510	1230	477	8100	975	101	140
13	96	84	236	738	1830	6190	254	673	7040	539	111	125
14	115	106	455	---	2240	6660	356	693	7930	325	121	463
15	132	37	285	718	2330	5920	506	510	6240	200	126	152
16	186	33	1450	---	2580	4810	378	431	5820	816	156	105
17	124	56	964	---	2300	4350	304	712	6200	124	119	159
18	114	80	1310	1020	2480	8480	644	539	4970	149	145	173
19	108	201	734	885	6060	4410	1050	269	3730	514	156	74
20	110	147	614	931	1620	3460	2220	194	4330	115	121	58
21	113	---	767	1090	3570	2670	1690	142	3880	91	124	63
22	120	---	1090	1110	7580	2230	954	103	4200	712	159	70
23	119	80	843	---	3900	2420	1600	285	3360	115	1100	80
24	---	111	767	---	2900	2140	1760	387	3710	94	127	132
25	---	79	---	1670	2870	2930	2020	48	3430	87	136	45
26	289	175	---	1180	5870	2500	2570	66	3070	120	142	26
27	158	41	---	1280	5730	3000	3730	183	2590	75	133	27
28	96	23	530	1400	4990	1970	2860	83	1650	397	162	32
29	103	73	574	1550	---	2850	2680	82	1600	201	172	684
30	108	480	1390	1070	---	3040	3350	153	875	367	258	57
31	135	---	673	827	---	3130	---	228	---	305	201	---
MONTH	116	187	589	---	2830	4370	1450	856	5790	1290	203	148

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.

LOCATION.--Lat 36°40'13", long 97°18'33",in NW1/4SE1/4 sec.4, T.25 N., R.1 W., Kay County, at gaging station at bridge on U.S. Highway 77 in Tonkawa, 4.0 mi (6.4 km) downstream from Thompson Creek, 7.8 mi (12.6 km) upstream from Chikaskia River, and at mile 33.8 (54.4 km).

DRAINAGE AREA.--4,528 sq mi (11,727.5 km^2), of which 8.0 sq mi (20.7 km^2) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
04...	59	820	194	0	200	1200	.30	2420
13...	60	960	240	6	240	1400	1.8	2910
19...	44	950	186	0	220	1400	1.4	2780
26...	40	1000	164	0	230	1500	.90	2940
NOV.								
01...	33	1100	156	4	230	1600	.30	3200
09...	39	1100	170	4	240	1600	.20	3210
16...	39	1500	168	2	320	2300	.50	4460
23...	38	1100	178	2	240	1600	.00	3130
30...	47	1200	160	2	260	1700	1.0	3300
DEC.								
07...	50	1700	134	0	320	2500	1.0	4780
14...	49	1600	172	0	320	2400	2.0	4580
21...	87	2200	216	0	450	3200	1.9	6200
28...	79	2100	132	0	390	3100	.70	6000
JAN.								
12...	151	2100	148	4	370	3100	.50	6090
18...	98	2000	142	2	330	3000	.20	5650
25...	91	2300	186	6	400	3400	1.2	6580
FEB.								
02...	84	2100	122	2	440	3200	.00	6160
09...	85	2100	132	0	400	3100	.00	5870
15...	134	2200	128	0	410	3400	.00	6370
21...	284	1700	144	2	300	2500	.00	4670
27...	755	620	132	6	120	970	1.2	1930
MAR.								
02...	546	1300	188	4	260	2000	4.6	4030
08...	550	1100	178	0	180	1700	4.8	3840
15...	353	2300	188	4	400	3500	2.8	6550
22...	260	2000	182	0	410	3100	1.3	5860
29...	187	2100	184	0	430	3200	1.3	6130
APR.								
05...	141	2000	102	0	540	3000	1.3	5770
12...	94	1900	102	0	390	2900	1.1	5540
19...	70	1700	98	0	340	2600	.20	4740
27...	2000	260	90	0	63	390	5.1	844
MAY								
03...	172	2200	80	0	460	3400	.90	6190
10...	88	1900	104	0	440	2900	2.2	5530
17...	64	1900	112	0	430	2900	.90	5630
23...	51	1800	104	0	400	2700	1.1	5330
JUNE								
07...	565	1400	200	0	310	2200	3.6	4390
14...	625	1600	166	6	350	2500	4.0	4990
21...	218	1800	142	0	410	2800	7.6	5580
28...	164	1900	158	16	410	2900	6.7	5860
JULY								
05...	172	1500	176	6	340	2300	5.2	4680
12...	119	2200	160	8	410	3400	4.8	6520
19...	76	1900	188	0	370	2900	3.6	5770
26...	369	160	128	0	51	220	4.6	580
AUG.								
02...	208	360	152	6	100	540	4.9	1230
09...	227	390	130	8	99	580	4.8	1280
16...	327	210	124	4	54	310	3.8	734
23...	113	730	150	0	170	1100	5.9	2340
30...	47	610	174	6	140	930	4.1	1980
SEP.								
06...	28	1200	208	8	260	1800	2.7	3730
22...	31	410	180	10	98	600	2.9	1350
27...	254	140	124	2	49	180	5.3	518

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.

PERIOD OF RECORD.--Chemical analyses: September 1951 to September 1963, July 1968 to current year.
Water temperatures: November 1959 to September 1963, July 1968 to current year.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
04...	3.29	386	320	161	20	4350	8.3
13...	3.96	471	400	193	21	4980	8.5
19...	3.78	330	340	187	22	4880	8.3
26...	4.00	318	310	175	25	5210	8.3
NOV.							
01...	4.35	285	320	185	27	5500	8.4
09...	4.37	338	310	164	27	5590	8.4
16...	6.07	470	420	279	32	7530	8.4
23...	4.26	321	320	171	27	5500	8.4
30...	4.49	419	300	165	30	5850	8.4
DEC.							
07...	6.50	645	400	290	37	8340	8.2
14...	6.23	606	400	259	35	8020	8.2
21...	8.43	1460	560	383	41	10400	8.2
28...	8.16	1280	480	372	42	10200	8.1
JAN.							
12...	8.28	2480	500	372	41	10200	8.4
18...	7.68	1500	440	320	42	9500	8.4
25...	8.95	1620	550	387	43	10800	8.5
FEB.							
02...	8.38	1400	500	400	41	10800	8.4
09...	7.98	1350	480	370	42	10100	8.3
15...	8.66	2310	500	400	43	10900	8.3
21...	6.35	3580	420	300	36	8240	8.4
27...	2.62	3930	250	130	17	3530	8.6
MAR.							
02...	5.48	5940	400	239	28	6960	8.6
08...	4.68	5110	380	234	25	6060	8.3
15...	8.91	6240	580	419	42	10800	8.4
22...	7.97	4110	590	441	36	9890	8.3
29...	8.34	3100	580	429	38	10200	8.3
APR.							
05...	7.85	2200	500	416	39	9610	8.2
12...	7.53	1410	470	386	38	9150	8.2
19...	6.45	896	380	300	38	8090	8.2
27...	1.15	4560	120	46	10	1490	8.2
MAY							
03...	8.42	2880	520	450	42	10100	8.3
10...	7.52	1310	510	430	37	9080	8.2
17...	7.66	973	500	410	37	9280	8.3
23...	7.25	734	440	360	37	8800	8.3
JUNE							
07...	5.97	6700	470	310	28	7200	8.1
14...	6.79	8420	500	350	31	8120	8.5
21...	7.59	3280	550	430	33	9140	8.2
28...	7.97	2600	570	410	35	9400	8.7
JULY							
05...	6.36	2170	480	330	30	7740	8.4
12...	8.87	2100	580	440	40	10700	8.5
19...	7.85	1180	540	390	36	9340	8.3
26...	.79	578	130	25	6.1	1030	7.3
AUG.							
02...	1.67	691	200	65	11	2120	8.6
09...	1.74	785	190	70	12	2200	8.6
16...	1.00	648	130	22	8.0	1290	8.4
23...	3.18	714	240	120	21	3980	8.1
30...	2.69	251	240	87	17	3480	8.6
SEP.							
06...	5.07	282	440	260	25	6290	8.6
22...	1.84	113	220	56	12	2330	8.6
27...	.70	355	110	5	5.8	870	8.4

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	OXYGEN CONSUMED (UNFILTERED) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
OCT. 28...	39	15.0	1.5
NOV. 24...	71	25.0	2.0
DEC. 22...	85	8.5	3.8
JAN. 19...	103	11.0	1.8
FEB. 17...	125	21.0	3.6
APR. 06...	85	12.0	2.0
MAY 19...	60	1.2	4.4
JUNE 17...	376	16.0	7.3
JULY 28...	211	16.0	1.4
AUG. 25...	67	22.0	2.2
SEP. 10...	23	6.6	4.1

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALDRIN (UG/L)	CHLORDANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIAZINON (UG/L)	DIELDRIN (UG/L)
OCT. 28...	.00	.0	.00	.00	.00	.00	.02

DATE	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)
OCT. 28...	.00	.00	.00	.00	.00	.00	.00

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT. 28...	5000	10.0	10.7	100
NOV. 24...	4750	.0	11.4	82
DEC. 22...	9700	5.0	12.4	103
JAN. 19...	8600	.0	13.2	95
FEB. 17...	--	5.5	10.4	88
APR. 06...	7500	13.5	10.9	110
MAY 19...	7600	26.0	10.1	128
JUNE 17...	7600	29.5	8.1	108
JULY 28...	1150	28.5	6.9	93
AUG. 25...	2800	34.0	6.6	96
SEP. 10...	6700	33.0	10.2	146

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 (CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3400	5160	6060	---	10400	6000	10400	9020	---	4300	1280	3480
2	3430	5520	6430	---	10400	6540	10400	11400	---	2380	2100	5630
3	3400	5290	6220	---	9550	6310	9840	10300	1590	3630	2980	7040
4	4350	5780	6860	---	9090	6760	9550	10200	2060	4690	3790	6320
5	4340	5550	6730	---	9340	8240	9400	9620	2450	7060	2270	6380
6	4330	5490	6640	2890	9790	6140	7810	9500	4480	9200	4330	6320
7	2040	5700	8230	2730	8230	5820	9340	10100	6530	9580	2260	7000
8	2060	5590	8390	4710	8290	6640	9110	10100	7460	10300	2240	7080
9	2030	5440	8200	7760	10200	7210	9130	9660	7440	10800	2240	7460
10	2610	6310	7370	8070	9630	5470	9430	9080	7970	11100	2250	6700
11	2600	6750	7490	8270	9870	9100	9280	8930	7370	11000	2590	7620
12	3860	7040	8240	9650	9930	10400	9030	8840	5990	10700	3810	7710
13	4980	7650	8020	10100	10300	9850	8810	9200	6410	10600	3870	7240
14	3250	5990	7900	9580	11000	10000	9370	9220	8040	10600	1190	---
15	3290	6860	7890	8620	10700	11100	9380	9240	7890	10100	2380	5970
16	3260	7670	7240	9500	11000	11100	9240	9240	7620	9420	1120	5800
17	4910	6860	7540	9540	10700	10900	8590	9280	9450	9970	1440	5520
18	4690	6370	7680	9350	11200	12000	8320	9240	10600	9180	1250	5150
19	4840	5610	9270	7800	10300	13400	8310	9310	10600	9680	1760	5560
20	4930	5620	8780	9380	10900	9880	7170	9360	9110	9140	3530	5860
21	4790	5680	10500	9770	9230	10000	7690	9410	9160	9270	3470	5360
22	4980	5400	10000	7840	9280	9770	6950	8760	9400	8900	3540	2070
23	5280	6520	10900	9990	7570	10400	2190	8800	9710	3770	4740	3830
24	5300	5840	9780	10500	7460	9340	5960	---	9580	577	2840	3870
25	5290	5860	9530	10800	6040	6960	6120	---	9350	737	3430	716
26	5180	5870	9880	10600	4130	10200	7120	---	9210	1040	4730	811
27	5520	5500	10400	10000	4870	10200	1580	---	9270	885	3570	746
28	5620	5870	10300	10300	5350	10200	2840	---	9530	916	3370	869
29	5680	5950	9980	10300	---	10600	6550	---	9800	902	3280	1800
30	5760	5830	10200	9960	---	10200	9020	---	2410	920	3390	1760
31	6030	---	---	10300	---	10000	---	---	---	1260	3920	---
MONTH	4260	6020	8420	8770	9100	9060	7930	---	7520	6540	2870	4890

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 (CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.5	12.5	---	---	4.0	14.0	21.5	---	25.5	---	25.5
2	---	7.0	11.5	---	---	3.0	13.5	23.5	---	27.5	---	---
3	---	5.5	12.5	---	---	2.0	14.0	---	22.5	29.0	---	---
4	---	6.5	9.0	---	---	8.0	11.5	21.5	25.5	29.5	---	---
5	---	10.0	8.5	---	---	7.5	10.5	24.0	27.0	29.0	---	---
6	---	11.0	6.0	---	---	7.5	12.0	---	28.0	31.5	---	---
7	---	12.5	6.0	---	---	7.0	14.0	---	28.0	31.5	---	---
8	---	14.5	8.0	---	---	7.5	15.0	---	25.0	31.5	---	---
9	---	10.5	10.0	---	---	8.0	17.0	---	24.5	32.0	---	---
10	---	12.0	---	---	1.0	8.5	17.5	---	26.5	31.5	---	---
11	---	9.0	---	0.5	3.0	11.5	20.0	---	26.0	30.5	30.0	---
12	---	8.0	---	---	---	12.5	21.0	---	26.5	30.5	29.0	---
13	---	7.5	---	---	---	14.5	18.0	---	27.5	30.5	28.5	---
14	---	---	---	---	---	15.0	17.0	---	29.0	30.5	26.0	---
15	15.0	5.0	5.0	1.0	---	13.5	18.5	---	30.0	29.5	26.0	22.5
16	13.5	7.0	---	1.5	8.5	13.0	19.0	---	30.5	27.5	28.0	19.5
17	14.0	7.5	6.0	3.0	10.5	12.5	19.5	---	31.5	29.5	30.0	16.0
18	15.5	8.5	7.0	2.5	13.0	10.0	19.5	---	31.0	30.0	30.0	13.5
19	16.5	9.5	4.5	1.0	---	7.0	21.0	---	31.0	26.0	29.0	15.5
20	17.0	9.5	2.5	2.0	---	7.5	20.0	---	29.0	26.5	28.0	17.5
21	20.0	10.5	4.5	3.5	---	10.0	20.5	---	29.0	27.0	28.0	19.0
22	19.0	---	7.0	5.5	---	10.5	19.0	---	31.0	28.5	28.5	19.5
23	17.5	---	4.0	5.5	---	9.5	16.5	---	30.5	---	28.5	18.5
24	17.5	---	3.0	7.0	---	7.0	19.0	---	30.0	---	29.0	18.0
25	17.0	5.0	1.5	7.5	6.5	9.5	21.5	---	28.5	---	30.5	18.0
26	13.0	8.0	1.0	---	9.5	12.5	21.5	---	28.5	---	30.5	21.5
27	---	6.0	3.5	---	6.0	16.0	19.5	---	28.5	---	30.5	25.0
28	12.5	6.0	3.5	---	5.0	15.5	20.0	---	29.0	---	27.0	25.5
29	12.0	9.0	5.0	---	---	18.5	17.0	---	30.0	---	26.5	25.5
30	12.0	13.0	4.5	---	---	16.0	18.0	---	29.5	---	25.5	24.5
31	11.5	---	---	---	---	14.0	---	---	---	---	26.0	---
MONTH	---	9.0	---	---	---	10.0	17.5	---	28.5	---	---	---

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	220	260	---	430	260	430	370	---	190	70	160
2	150	240	270	---	430	280	430	470	---	110	100	240
3	150	230	260	---	390	270	410	420	82	160	140	300
4	190	250	290	---	380	290	390	420	100	200	170	270
5	190	240	280	---	390	340	390	400	120	300	110	270
6	190	240	280	120	400	260	330	390	200	380	190	270
7	100	240	340	130	340	250	390	420	280	400	110	290
8	100	240	350	200	350	280	380	420	310	420	110	300
9	100	230	340	320	420	300	380	400	310	440	110	310
10	120	270	310	340	400	230	390	380	330	460	110	280
11	120	280	310	340	410	380	380	370	310	450	120	320
12	170	300	340	400	410	430	370	370	260	440	170	320
13	220	320	330	420	420	410	370	380	270	440	170	300
14	150	260	330	400	450	410	390	380	340	440	67	---
15	150	290	330	360	440	460	390	380	330	420	110	250
16	150	320	300	390	450	460	380	380	320	390	64	250
17	210	290	320	390	440	450	360	380	390	410	76	240
18	200	270	320	390	460	490	350	380	440	380	69	220
19	210	240	380	330	420	550	350	380	440	400	89	240
20	210	240	360	390	450	410	300	390	380	380	160	250
21	210	240	430	400	380	410	320	390	380	380	160	230
22	220	230	410	330	380	400	290	360	390	370	160	100
23	230	280	450	410	320	430	110	360	400	170	210	170
24	230	250	400	430	310	390	250	---	400	43	130	170
25	230	250	390	440	260	290	260	---	390	49	150	48
26	220	250	410	440	180	420	300	---	380	61	210	52
27	240	240	430	410	210	420	82	---	380	55	160	49
28	240	250	420	420	230	420	130	---	390	56	150	54
29	240	250	410	420	---	440	280	---	400	55	150	91
30	250	250	420	410	---	420	370	---	110	56	150	89
31	260	---	---	420	---	410	---	---	---	69	170	---
MONTH	190	260	350	360	380	370	330	---	310	280	130	210

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	23	28	---	111	395	200	163	---	559	81	15
2	28	24	29	---	99	402	221	204	---	178	69	21
3	26	23	29	---	85	424	189	197	206	114	61	25
4	30	25	38	---	88	359	139	187	277	108	60	22
5	30	24	34	---	85	410	144	142	420	138	33	20
6	31	24	38	41	87	301	97	128	438	163	48	20
7	16	27	47	36	65	311	106	151	449	149	202	21
8	23	27	46	61	65	404	104	140	624	163	266	20
9	54	24	41	105	102	389	100	119	665	175	96	19
10	45	28	42	118	122	236	120	102	852	180	44	17
11	26	30	41	160	151	374	106	89	1020	163	37	19
12	33	43	45	135	158	406	92	74	1000	154	49	19
13	37	39	48	105	145	381	83	82	669	136	39	18
14	21	27	57	129	135	368	116	79	607	123	14	---
15	20	30	56	101	132	421	105	68	511	107	125	12
16	18	34	60	109	136	468	81	69	398	89	60	11
17	26	30	66	107	141	481	78	68	395	89	45	14
18	25	28	61	101	158	443	80	62	372	76	26	25
19	25	25	86	81	149	498	81	61	319	81	26	28
20	25	25	86	89	140	583	76	68	249	67	36	32
21	25	26	106	106	232	384	81	62	227	63	29	24
22	25	22	98	81	149	286	177	56	227	65	25	8.7
23	26	27	90	99	97	257	258	50	215	41	62	13
24	26	38	84	104	119	191	287	---	209	273	25	27
25	26	28	83	106	230	143	95	---	206	206	28	223
26	25	27	88	108	167	196	130	---	213	64	44	176
27	25	24	91	108	384	205	345	---	198	41	26	54
28	25	26	87	113	393	194	203	---	177	33	19	29
29	25	28	83	106	---	210	188	---	170	77	17	33
30	26	30	79	108	---	174	198	---	42	66	22	23
31	26	---	---	107	---	191	---	---	---	118	18	---
MONTH	27	28	62	101	147	338	142	---	406	131	56	34

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	820	1400	1700	---	3200	1700	3200	2700	---	1100	290	840
2	830	1500	1800	---	3200	1900	3200	3600	---	560	490	1600
3	820	1400	1800	---	2900	1800	3000	3200	370	880	710	2000
4	1100	1600	2000	---	2800	2000	2900	3100	480	1200	930	1800
5	1100	1500	1900	---	2800	2500	2900	2900	580	2100	540	1800
6	1100	1500	1900	590	3000	1700	2300	2900	1200	2800	1100	1800
7	480	1600	2500	650	2500	1600	2800	3100	1900	2900	530	2000
8	480	1500	2500	1200	2500	1900	2800	3100	2200	3200	530	2100
9	480	1500	2400	2300	3100	2100	2800	3000	2200	3300	530	2200
10	620	1800	2200	2400	2900	1500	2900	2800	2400	3500	530	1900
11	620	1900	2200	2500	3000	2800	2800	2700	2200	3400	620	2200
12	950	2000	2500	2900	3000	3200	2700	2700	1700	3300	940	2300
13	1300	2300	2400	3100	3200	3000	2700	2800	1800	3300	960	2100
14	780	1700	2300	2900	3400	3100	2900	2800	2400	3300	270	---
15	790	2000	2300	2600	3300	3500	2900	2800	2300	3100	560	1700
16	780	2300	2100	2900	3400	3500	2800	2800	2200	2900	250	1600
17	1300	2000	2200	2900	3300	3400	2600	2800	2900	3100	330	1500
18	1200	1800	2300	2800	3500	3800	2500	2800	3300	2800	280	1400
19	1300	1600	2800	2300	3200	---	2500	2800	3300	3000	410	1500
20	1300	1600	2600	2900	3400	3000	2100	2800	2800	2800	850	1600
21	1300	1600	3200	3000	2800	3100	2300	2900	2800	2800	840	1500
22	1300	1500	3100	2300	2800	3000	2000	2600	2900	2700	850	490
23	1400	1900	3400	3100	2200	3200	520	2700	3000	920	1300	940
24	1400	1600	3000	3200	2200	2800	1700	---	2900	110	680	960
25	1400	1600	2900	3300	1700	2000	1700	---	2800	150	830	150
26	1400	1600	3000	3300	1000	3100	2100	---	2800	230	1300	170
27	1500	1500	3200	3100	1300	3100	360	---	2800	190	860	150
28	1600	1600	3200	3200	1500	3100	680	---	2900	200	810	190
29	1600	1700	3100	3200	---	3300	1900	---	3000	190	790	420
30	1600	1600	3100	3100	---	3100	2700	---	570	200	820	410
31	1700	---	---	3200	---	3100	---	---	---	280	970	---
MONTH	1100	1700	2500	2700	2800	2700	2400	---	2200	1900	700	1400

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	144	182	---	832	2620	1500	1200	---	3280	333	79
2	151	156	199	---	745	2740	1660	1550	---	884	331	135
3	139	144	196	---	630	2850	1410	1470	915	617	317	172
4	179	161	263	---	647	2460	1030	1400	1330	659	331	146
5	178	158	236	---	629	2950	1060	1060	2100	960	162	133
6	184	155	258	207	648	2010	688	947	2610	1200	280	136
7	79	176	339	184	465	2040	783	1130	3050	1110	992	148
8	108	176	333	370	469	2760	761	1050	4390	1230	1300	139
9	257	154	298	744	763	2710	733	885	4670	1320	469	136
10	229	189	292	844	906	1520	884	751	6090	1370	216	115
11	132	205	292	1150	1130	2740	777	649	7130	1240	188	134
12	185	299	326	1000	1180	3050	672	541	6650	1160	273	135
13	228	275	342	788	1090	2840	603	604	4520	1030	219	126
14	114	178	405	956	1020	2740	855	582	4340	929	57	---
15	107	209	398	735	992	3190	771	500	3640	796	623	82
16	97	239	418	806	1030	3550	599	508	2810	659	232	74
17	160	209	462	794	1060	3640	565	503	2920	661	193	91
18	151	191	429	745	1200	3400	578	455	2800	557	107	155
19	153	160	632	574	1110	---	584	451	2410	599	118	179
20	157	160	629	656	1060	4340	526	500	1830	494	193	213
21	151	166	797	791	1700	2870	577	457	1670	464	153	155
22	155	144	705	578	1100	2120	1220	407	1680	472	134	42
23	167	187	685	737	681	1930	1260	366	1600	224	380	71
24	168	221	623	779	835	1400	1900	---	1550	718	128	152
25	164	182	612	804	1530	988	631	---	1520	641	147	682
26	156	178	654	814	960	1470	903	---	1560	241	271	581
27	161	152	684	804	2370	1530	1530	---	1460	141	139	169
28	168	173	651	848	2510	1450	1050	---	1310	117	101	100
29	162	185	620	797	---	1580	1280	---	1260	270	89	150
30	169	198	593	809	---	1310	1420	---	211	232	117	103
31	175	---	---	805	---	1430	---	---	---	481	102	---
MONTH	160	184	452	735	1050	2410	960	---	2790	798	281	163

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	3030	3560	---	6310	3520	6310	5410	---	2530	752	2040
2	2010	3240	3760	---	6310	3840	6310	6960	---	1400	1230	3310
3	2000	3110	3650	---	5760	3710	5950	6250	934	2130	1750	4140
4	2560	3400	4030	---	5460	3970	5760	6180	1210	2750	2230	3710
5	2550	3260	3950	---	5620	4910	5660	5800	1440	4150	1330	3750
6	2540	3220	3900	1460	5910	3610	4630	5730	2630	5530	2540	3710
7	1200	3350	4900	1600	4900	3420	5620	6120	3840	5780	1330	4110
8	1210	3280	5010	2770	4940	3900	5470	6120	4400	6250	1320	4160
9	1190	3200	4880	4600	6180	4240	5490	5830	4390	6570	1320	4400
10	1530	3710	4340	4800	5810	3210	5680	5450	4730	6770	1320	3940
11	1530	3970	4420	4930	5970	5470	5580	5360	4340	6700	1520	4510
12	2270	4140	4910	5820	6010	6310	5420	5300	3520	6510	2240	4560
13	2930	4520	4770	6120	6250	5950	5280	5530	3770	6480	2270	4260
14	1910	3520	4690	5780	6700	6050	5640	5540	4780	6440	699	---
15	1930	4030	4680	5150	6510	6770	5650	5560	4680	6120	1400	3510
16	1910	4540	4260	5730	6700	6770	5560	5560	4510	5670	658	3410
17	2880	4030	4450	5750	6510	6640	5140	5580	5690	6030	846	3240
18	2750	3740	4540	5630	6830	7350	4960	5560	6440	5520	734	3030
19	2840	3300	5580	4620	6250	---	4950	5600	6440	5840	1030	3270
20	2900	3300	5260	5650	6640	5970	4210	5640	5470	5490	2070	3840
21	2810	3340	6380	5900	5550	6050	4550	5670	5510	5580	2040	3150
22	2930	3170	6050	4650	5580	5900	4080	5250	5660	5340	2080	1220
23	3100	3830	6640	6040	4470	6310	1290	5270	5860	2210	2780	2250
24	3110	3430	5910	6380	4400	5620	3500	---	5780	339	1670	2270
25	3110	3440	5750	6570	3550	4090	3590	---	5630	433	2010	421
26	3040	3450	5970	6440	2430	6180	4180	---	5540	611	2780	476
27	3240	3230	6310	6050	2860	6180	928	---	5580	520	2100	438
28	3300	3450	6250	6250	3140	6180	1670	---	5750	538	1980	510
29	3340	3500	6040	6250	---	6440	3850	---	5920	530	1930	1060
30	3360	3420	6180	6030	---	6180	5410	---	1420	560	1990	1030
31	3540	---	---	6250	---	6050	---	---	---	740	2300	---
MONTH	2500	3540	5030	5280	5480	5360	4740	---	4490	3940	1690	2070

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	415	311	394	---	1640	5460	2950	2370	---	7500	869	193
2	370	333	408	---	1470	5600	3270	3040	---	2200	829	286
3	340	310	404	---	1240	5880	2780	2900	2340	1500	780	346
4	407	339	533	---	1280	5010	2040	2750	3330	1470	793	301
5	406	334	480	---	1240	5870	2090	2080	5210	1960	403	273
6	419	331	527	513	1280	4170	1370	1870	5900	2370	639	281
7	197	371	675	455	926	4290	1550	2230	6250	2180	2470	300
8	271	372	662	822	934	5620	1510	2060	8810	2410	3250	281
9	644	328	593	1490	1500	5460	1450	1750	9370	2590	1170	273
10	567	390	586	1680	1790	3240	1750	1490	12150	2690	539	238
11	326	418	585	2290	2220	5430	1540	1290	14310	2420	464	268
12	441	603	649	1980	2320	6000	1330	1070	13870	2280	653	271
13	498	550	682	1550	2140	5590	1200	1190	9290	2020	522	253
14	278	371	810	1890	2010	5410	1690	1150	8670	1830	149	---
15	261	424	796	1460	1950	6270	1530	990	7270	1570	1550	170
16	238	478	839	1590	2030	6960	1190	1010	5630	1300	616	156
17	350	424	926	1570	2090	7150	1120	995	5770	1300	498	193
18	335	394	859	1470	2360	6650	1150	900	5510	1100	280	335
19	338	338	1250	1150	2190	---	1160	893	4730	1180	299	379
20	344	339	1250	1300	2080	8560	1060	989	3620	979	470	446
21	334	351	1570	1560	3370	5650	1150	903	3300	919	374	332
22	340	308	1390	1150	2170	4190	2470	807	3320	937	326	105
23	360	383	1340	1450	1360	3800	3140	726	3150	538	842	170
24	361	463	1230	1530	1680	2780	3970	---	3060	2170	315	362
25	352	381	1210	1580	3180	2000	1310	---	3010	1820	359	1950
26	337	372	1290	1600	2230	2890	1820	---	3100	645	600	1620
27	341	323	1350	1580	5210	3020	3910	---	2890	387	340	480
28	348	363	1280	1670	5380	2850	2580	---	2590	320	246	276
29	342	387	1220	1570	---	3110	2620	---	2490	741	218	380
30	356	416	1170	1590	---	2570	2820	---	524	635	285	262
31	363	---	---	1590	---	2810	---	---	---	1260	242	---
MONTH	368	384	899	1470	2120	4810	1980	---	5690	1720	690	385

07152500 ARKANSAS RIVER AT RALSTON, OKLA.

LOCATION.--Lat 36°30'09", long 96°43'22", in NW1/4 sec.1, T.23 N., R.5 E., Osage County, at gaging station at bridge on State Highway 18 at Ralston, 2.0 mi (3.2 km) downstream from Salt Creek, 2.0 mi (3.2 km) upstream from Grayhorse Creek, and at mile 594.0 (955.7 km).

DRAINAGE AREA.--54,465 sq mi (141,064.4 km^2), of which 7,615 sq mi (19,722.8 km^2) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: January 1950 to September 1963, May 1965 to current year.
Water temperatures: January 1950 to September 1963, May 1965 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.								
01-02	2340	83	98	14	50	120	3.8	.57
03-04	1560	120	142	4	72	180	5.5	1.2
05-10	1520	170	170	4	95	260	3.4	1.5
11...	6180	120	150	4	84	180	8.5	1.8
12-15	4760	54	104	0	37	76	6.4	1.0
16-18	2570	92	116	0	52	140	5.5	1.1
19-20	1810	140	146	4	82	220	4.9	1.3
21-31	1320	210	190	6	110	320	4.7	1.6
NOV.								
01-10	1020	260	154	46	130	400	.00	.72
11-20	863	290	246	6	140	440	4.5	1.7
21-30	829	300	266	0	150	460	4.9	1.7
DEC.								
01-10	778	300	242	20	160	460	1.9	1.4
11-20	788	340	250	14	180	500	3.7	1.6
21-31	927	390	250	14	200	580	5.0	1.7
JAN.								
01-02	880	440	138	0	200	660	.20	.12
03-06	2760	300	224	0	150	450	9.0	1.8
07-12	3040	150	198	0	100	240	5.9	1.1
13-22	1260	350	230	0	150	520	7.9	1.7
23-31	1090	380	252	0	160	570	8.1	1.8
FEB.								
01-08	1030	420	106	4	180	610	.90	.08
09-11	683	350	236	18	170	510	6.7	1.4
12-16	1040	480	228	18	200	700	8.9	1.7
17-24	1600	370	214	12	190	530	8.4	1.6
25-28	2800	430	200	8	190	620	7.2	1.3
MAR.								
01...	12300	120	130	0	81	180	.30	.05
02-03	9890	94	44	6	60	140	.20	.02
04-06	5500	190	128	12	98	270	5.9	.44
07-10	5020	260	174	0	120	400	8.6	1.0
11-13	4660	210	150	4	110	300	10	1.2
14-18	3890	290	172	6	160	420	9.5	1.2
19-31	2480	420	210	8	220	580	6.4	1.2
APR.								
01-15	1480	440	156	0	260	640	.60	.03
16-24	1480	390	190	6	250	570	1.7	.60
25-27	4350	180	150	0	110	280	5.0	.80
28-29	7700	140	140	0	55	220	4.5	.70
30...	7280	74	112	0	46	110	4.2	.90
MAY								
01...	4480	110	136	4	66	150	4.7	1.0
02-05	2850	300	146	16	140	440	.90	.12
06-15	1740	420	186	2	190	620	2.5	1.0
16-26	1620	350	124	0	190	530	.00	.25
27...	5930	130	178	8	100	190	8.9	2.6
28-29	6400	89	146	4	78	120	3.8	.91
30-31	3980	120	140	2	88	170	9.6	.93
JUNE								
01-04	6140	120	114	10	81	180	1.1	.00
05-07	10500	73	136	0	59	110	3.6	.79
08-09	8480	140	136	0	66	210	3.8	1.0
10-11	7000	250	130	0	60	390	3.6	.82
12-16	7920	330	142	0	110	500	4.3	.95
17-21	6060	200	124	0	62	300	5.0	1.0
22-28	3080	290	154	0	110	430	4.1	1.3
29-30	2180	380	166	0	150	580	2.5	1.4
JULY								
01-02	2950	330	90	8	140	480	.40	.00
03-09	3410	210	156	0	100	320	5.7	1.2
10-14	4540	130	128	0	62	200	7.1	1.2
15-25	1760	270	180	0	130	410	3.1	1.2
26...	3300	560	186	6	180	860	9.7	2.0
27-31	1890	180	160	0	95	260	2.9	.97
AUG.								
01-04	2520	170	134	8	81	220	5.7	.88
05-06	2170	100	12	40	54	140	.90	.03
07-13	2080	130	148	10	79	170	5.6	.85
14-21	1360	240	180	6	140	320	3.6	1.6
22-24	1720	170	164	0	80	220	3.4	.72
25-26	2960	95	120	0	61	140	6.3	.62
27-28	1400	160	156	0	89	250	3.8	.85
29-31	1060	240	190	0	120	370	2.8	1.1

07152500 ARKANSAS RIVER AT RALSTON, OKLA.

EXTREMES,Current year.--Dissolved solids: Maximum, 1,930 mg/l July 26; minimum, 287 mg/l Oct. 12-15.
Hardness: Maximum, 440 mg/l Dec. 21-31; minimum, 90 mg/l Mar. 2-3.
Specific conductance: Maximum daily, 3,230 micromhos July 26; minimum daily, 470 micromhos Oct. 14.

Period of record.--Dissolved solids: Maximum, 3,300 mg/l Sept. 11-16, 1955; minimum, 133 mg/l Oct. 7-8, 1967.
Hardness: Maximum, 582 mg/l Jan. 5, 1951; minimum, 76 mg/l Oct. 3-6, 1955.
Specific conductance: Maximum daily, 7,510 micromhos Sept. 14, 1955; minimum daily, 233 micromhos Oct. 8, 1967.
Water temperatures (1950-1963, 1965-1970): Maximum, 37.0°C July 28, 1956; minimum, freezing point on many days during winter period.

REMARKS.-- Continuous monitor records for water temperatures and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-02	389	.53	2460	150	46	2.9	687	9.0
03-04	552	.75	2330	190	67	3.8	972	8.4
05-10	748	1.02	3070	240	94	4.8	1300	8.5
11...	576	.78	9610	220	90	3.5	983	8.4
12-15	287	.39	3690	120	35	2.1	511	8.2
16-18	430	.58	2980	150	55	3.3	748	8.3
19-20	632	.86	3090	210	84	4.2	1100	8.5
21-31	860	1.17	3070	280	114	5.5	1520	8.5
NOV.								
01-10	1090	1.48	3000	340	137	6.1	1820	9.2
11-20	1200	1.63	2800	370	158	6.6	2040	8.4
21-30	1230	1.67	2750	380	162	6.7	2110	8.3
DEC.								
01-10	1340	1.82	2820	400	168	6.5	2160	8.7
11-20	1420	1.93	3020	420	192	7.2	2300	8.6
21-31	1560	2.12	3910	440	212	8.1	2590	8.6
JAN.								
01-02	1610	2.19	3830	320	207	11	2650	8.3
03-06	1230	1.67	9170	350	166	7.0	2030	8.3
07-12	776	1.06	6370	290	128	3.8	1280	8.3
13-22	1330	1.81	4530	350	161	8.1	2220	8.3
23-31	1440	1.96	4240	380	173	8.5	2440	8.2
FEB.								
01-08	1360	1.85	3780	270	180	11	2450	8.7
09-11	1350	1.84	2490	410	190	7.5	2340	8.8
12-16	1750	2.38	4910	430	210	10	3040	8.8
17-24	1380	1.88	5960	390	190	8.2	2420	8.6
25-28	1520	2.07	11500	360	180	9.9	2670	8.6
MAR.								
01...	535	.73	17800	180	73	3.9	956	8.2
02-03	359	.49	9590	90	44	4.3	654	9.2
04-06	736	1.00	10900	210	85	5.7	1300	8.8
07-10	1020	1.39	13800	260	120	7.0	1780	8.3
11-13	802	1.09	10100	230	100	6.0	1430	8.5
14-18	1110	1.51	11700	290	140	7.4	1910	8.5
19-31	1480	2.01	9910	370	180	9.5	2570	8.5
APR.								
01-15	1600	2.18	6390	350	210	10	2670	8.3
16-24	1480	2.01	5910	380	210	8.7	2500	8.5
25-27	770	1.05	9040	230	110	5.2	1300	8.3
28-29	595	.81	12400	180	65	4.5	1040	8.3
30...	360	.49	7080	130	38	2.8	620	8.3
MAY								
01...	513	.70	6210	170	52	3.7	859	8.5
02-05	1100	1.50	8460	280	130	7.8	1950	8.9
06-15	1490	2.03	7000	350	190	9.8	2610	8.4
16-26	1290	1.75	5640	290	190	8.9	2250	7.8
27...	676	.92	10800	260	100	3.5	1140	8.6
28-29	468	.64	8090	190	66	2.8	806	8.5
30-31	544	.74	5850	200	82	3.7	949	8.4
JUNE								
01-04	529	.72	8770	180	70	3.9	936	8.8
05-07	391	.53	11100	160	48	2.5	679	8.2
08-09	569	.77	13000	170	58	4.7	1020	8.3
10-11	904	1.23	17100	200	93	7.7	1600	8.3
12-16	1110	1.51	23700	230	110	9.5	1930	8.0
17-21	724	.98	11800	160	58	6.9	1300	8.3
22-28	1020	1.39	8480	220	96	8.5	1810	7.9
29-30	1320	1.80	7770	290	140	9.7	2280	8.3
JULY								
01-02	1120	1.52	8920	210	120	9.9	1980	8.7
03-09	854	1.16	7860	230	100	6.0	1500	8.3
10-14	562	.76	6890	160	58	4.5	981	8.2
15-25	1030	1.40	4900	270	120	7.2	1810	8.0
26...	1930	2.62	17200	360	200	13	3280	8.5
27-31	724	.98	3700	210	79	5.4	1290	8.0
AUG.								
01-04	624	.85	4250	170	87	5.7	1060	8.6
05-06	391	.53	2290	110	33	4.1	685	9.9
07-13	537	.73	3020	180	42	4.2	901	8.7
14-21	885	1.20	3250	200	82	7.4	1480	8.5
22-24	624	.85	2900	170	35	5.7	1070	7.9
25-26	431	.59	3450	150	52	3.4	749	8.3
27-28	691	.94	2610	210	82	4.8	1140	7.7
29-31	978	1.33	2800	270	110	6.4	1590	7.8

07152500 ARKANSAS RIVER AT RALSTON, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)
SEP.								
01-04	926	280	180	0	130	420	3.3	1.2
05-08	1190	190	144	4	89	300	4.2	1.0
09-17	608	270	192	8	130	410	3.8	1.4
18-24	1200	210	168	4	95	320	5.0	1.5
25...	3280	56	118	0	22	100	2.8	.59
26-30	3090	140	138	0	65	200	7.5	1.0
WTD. AVG.	--	236	158	4	117	350	4.7	.99
TIME WTD. AVG.	2360	279	178	6	139	412	4.4	1.1
TOT. LOAD (TONS)	--	551000	367000	9800	272000	815000	10900	2300

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS)	OXYGEN CON- SUMED (UNFIL- TERED) (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)
OCT.			
28...	1250	15.0	5.1
NOV.			
24...	848	3.2	4.7
DEC.			
22...	1000	3.4	2.8
JAN.			
19...	1160	14.0	2.4
FEB.			
27...	2410	9.7	3.1
APR.			
06...	1530	19.0	8.1
20...	1270	9.5	11
MAY			
19...	1340	10.0	6.9
JUNE			
18...	6720	35.0	4.0
JULY			
29...	1580	16.0	3.2
AUG.			
25...	3840	110	4.2
SEP.			
10...	624	11.0	5.4

07152500 ARKANSAS RIVER AT RALSTON, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
SEP.								
01-04	1090	1.48	2730	280	130	7.3	1850	8.3
05-08	816	1.11	2620	220	95	5.6	1360	8.5
09-17	1100	1.50	1810	300	130	6.8	1820	8.6
18-24	850	1.16	2750	240	96	5.9	1480	8.4
25...	330	.45	2920	130	33	2.1	553	8.2
26-30	582	.79	4860	170	57	4.7	1010	8.2
WTD. AVG.	915	1.24	--	247	109	6.4	1580	8.4
TIME WTD. AVG.	1080	1.47	--	290	133	7.0	1840	8.4
TOT. LOAD (TONS)	2131000	--	--	--	--	--	--	--

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT.				
28...	1600	12.0	12.7	124
NOV.				
24...	2000	1.5	13.0	96
DEC.				
22...	2200	7.5	13.3	120
JAN.				
19...	2300	1.0	13.2	97
FEB.				
27...	2000	7.0	10.6	93
APR.				
06...	2850	11.5	11.1	105
20...	2850	18.5	9.1	104
MAY				
19...	2200	15.5	8.7	91
JUNE				
18...	850	29.5	6.4	109
JULY				
29...	1100	23.5	7.4	91
AUG.				
25...	800	31.0	6.5	89
SEP.				
10...	1750	26.0	6.9	89

07152500 ARKANSAS RIVER AT RALSTON, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	611	1660	2070	2610	2710	959	2800	1150	1060	2240	1280	1770
2	735	1790	2040	2750	2680	777	2720	1720	1090	1890	1140	1910
3	879	1770	2100	2330	2640	887	2780	1890	828	1740	965	2010
4	1050	1830	2170	1920	2500	1150	2980	2050	917	1290	913	1940
5	1100	1930	2150	2110	2640	1370	3060	2270	609	1330	748	1610
6	1210	1890	2100	1850	2510	1470	3110	2480	704	1810	772	1160
7	1280	1940	2260	1360	2510	1760	2850	2520	721	1370	929	1460
8	1290	1940	2190	1100	2730	1980	3020	2590	941	1690	1060	1800
9	1310	1980	2220	1170	2260	1620	2990	2460	1090	1240	804	2160
10	1370	1990	2240	1350	2310	1340	2720	2520	1500	1030	735	2010
11	910	2000	2270	1280	2390	1410	2580	2740	1680	882	896	2010
12	476	1950	2340	1430	2730	1390	2550	2730	2200	902	1060	1670
13	509	1860	2380	1840	2510	1530	2650	2650	2080	864	1160	1720
14	470	1900	2300	2030	2930	1810	2760	2550	1910	1160	1330	1790
15	532	2060	2220	1870	3170	1900	2780	2450	1690	1400	1360	1860
16	620	2060	2190	2250	2960	1760	2700	2270	2060	1540	1440	2060
17	789	2080	2420	2220	2190	2280	2750	2370	1410	1760	1570	1870
18	880	2050	2320	2460	2280	2120	2650	2300	1310	1890	1430	1200
19	1020	2000	2360	2380	2310	2380	2700	2360	1170	1840	1410	1190
20	1190	2150	2390	2470	2380	2400	2600	2420	1290	2050	1610	1660
21	1200	2170	2370	2340	2460	2650	2520	2490	1320	2000	1670	1700
22	1290	2150	2350	2340	2530	2870	2500	2340	1590	2060	717	1650
23	1380	2140	2360	2270	2380	3050	2150	2470	1890	1920	1160	1560
24	1370	2080	2020	2440	2310	2680	2060	2340	1950	1960	1450	1620
25	1520	1940	2730	2510	2890	2620	1220	2250	1620	1480	804	628
26	1580	2290	2750	2350	1740	2580	1390	2090	1740	3230	834	1160
27	1580	1930	2680	2330	2480	2550	1200	1100	1850	1010	1150	644
28	1680	2030	2670	2380	2390	2480	903	775	2050	1150	1380	931
29	1740	2140	2720	2590	---	2510	1040	819	2290	1390	1690	1070
30	1550	2180	2540	2550	---	2610	655	876	2400	1480	1620	963
31	1430	---	2830	2630	---	2720	---	1000	---	1360	1750	---
MONTH	1110	2000	2350	2110	2520	1990	2380	2100	1500	1580	1210	1580

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	---	14.0	5.0	2.0	4.0	---	21.0	---	---	---	28.0
2	16.0	---	12.5	4.5	1.0	2.5	---	21.5	---	---	---	28.0
3	16.0	---	13.5	---	2.0	2.0	---	20.5	---	---	---	27.5
4	14.0	---	10.5	---	3.5	3.5	---	20.0	---	---	---	27.0
5	13.0	8.0	9.5	---	1.5	6.5	---	22.5	---	---	---	27.0
6	14.0	9.5	7.0	0.0	1.0	6.5	---	21.5	---	---	---	28.0
7	14.5	13.5	6.5	0.0	0.0	6.5	12.5	---	---	---	---	30.0
8	8.5	14.0	7.5	0.0	0.0	7.0	14.0	---	---	---	---	31.5
9	4.0	10.0	9.0	0.5	---	7.5	16.5	---	---	---	---	29.0
10	5.0	10.5	---	---	---	8.5	17.0	---	---	---	---	---
11	6.5	8.0	---	---	3.5	10.5	19.0	---	---	---	30.5	29.5
12	7.0	8.0	---	---	3.5	11.5	20.0	---	---	---	---	27.5
13	---	7.0	---	---	4.0	13.0	16.5	---	---	---	29.5	27.5
14	9.0	3.5	5.0	2.5	4.5	14.5	16.5	---	---	---	27.0	27.5
15	8.5	3.5	6.0	---	6.0	13.5	18.5	---	---	---	27.0	21.5
16	6.5	5.5	5.5	---	9.5	13.5	20.0	---	---	---	9.0	19.0
17	7.0	7.5	5.5	---	10.0	12.5	19.5	---	---	---	14.5	16.5
18	7.5	8.5	8.0	---	13.0	6.5	19.0	---	---	---	29.0	15.0
19	8.0	9.0	5.5	---	10.5	7.0	20.5	---	---	---	28.5	15.0
20	8.5	8.0	3.5	---	8.0	8.0	19.5	---	---	---	28.0	16.5
21	8.5	9.5	5.0	4.5	2.0	10.0	19.5	---	---	---	28.5	18.5
22	10.0	---	7.5	---	0.0	10.0	18.5	---	---	---	27.0	19.5
23	8.5	---	---	---	1.5	9.5	18.0	---	---	---	24.5	19.0
24	---	---	---	---	2.5	7.5	18.5	---	---	---	30.0	18.0
25	---	3.0	---	---	7.5	8.5	20.0	---	---	---	30.5	18.5
26	---	8.5	---	---	8.5	10.5	20.0	---	---	---	31.0	22.0
27	---	8.0	---	---	8.5	14.0	20.0	---	---	---	31.0	24.5
28	---	6.5	3.5	---	7.0	15.0	18.5	---	---	---	26.5	25.0
29	---	9.0	---	7.0	---	---	17.0	---	---	---	27.0	25.5
30	---	13.5	5.0	7.0	---	---	17.5	---	---	---	26.5	25.0
31	---	---	5.0	3.5	---	---	---	---	---	---	27.0	---
MONTH	---	---	---	---	4.5	9.0	18.0	---	---	---	---	23.5

07152500 ARKANSAS RIVER AT RALSTON, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	120	150	190	200	71	210	85	78	170	94	130
2	54	130	150	200	200	57	200	130	80	140	84	140
3	65	130	160	170	200	65	210	140	61	130	71	150
4	77	140	160	140	190	85	220	150	68	95	67	140
5	81	140	160	160	200	100	230	170	45	98	55	120
6	89	140	160	140	190	110	230	180	52	130	57	86
7	94	140	170	100	190	130	210	190	53	100	68	110
8	95	140	160	81	200	150	220	190	69	130	78	130
9	97	150	160	86	170	120	220	180	80	91	59	160
10	100	150	170	100	170	99	200	190	110	76	54	150
11	67	150	170	94	180	100	190	210	120	65	66	150
12	35	140	170	110	200	100	190	200	160	66	78	140
13	37	140	180	140	190	110	200	200	150	64	86	130
14	34	140	170	150	220	130	200	190	140	86	98	130
15	39	150	160	140	230	140	210	180	130	100	100	140
16	46	150	160	170	220	130	200	170	150	120	110	150
17	58	150	180	160	160	170	200	180	100	130	120	140
18	65	150	170	180	170	160	200	170	97	140	140	88
19	75	150	170	180	170	180	200	170	86	140	100	88
20	88	160	180	180	180	180	190	180	95	150	120	120
21	88	160	180	170	180	200	190	180	97	150	120	130
22	95	160	170	170	190	210	190	170	120	150	53	120
23	100	160	170	170	180	230	160	180	140	140	86	120
24	100	150	150	180	170	200	150	170	140	150	110	120
25	110	140	200	190	210	190	90	170	120	110	59	46
26	120	170	200	170	130	190	100	150	130	240	62	86
27	120	140	200	170	180	190	88	81	140	74	85	66
28	120	150	200	180	180	180	66	57	150	83	100	69
29	130	160	200	190	---	190	77	60	170	100	130	79
30	110	160	190	190	---	190	48	64	180	110	130	71
31	110	---	210	190	---	200	---	74	---	100	130	---
MONTH	82	150	170	160	190	150	180	160	110	120	89	120

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	316	381	333	449	590	2350	1030	1030	742	1030	525	339
2	303	393	327	494	594	1770	961	1150	688	1360	617	354
3	295	388	336	967	580	1460	960	1120	887	1420	505	360
4	297	383	339	865	549	1490	982	1080	2280	771	488	356
5	282	385	330	956	564	1480	996	1110	1630	742	356	356
6	292	376	326	1640	526	1340	969	1100	1350	975	297	342
7	283	379	349	1490	451	1460	871	1040	1210	819	366	375
8	309	371	330	799	436	1850	880	993	1670	1160	462	312
9	347	371	335	671	316	1770	818	903	1750	1200	387	306
10	805	361	338	613	277	1540	728	885	2330	1230	353	250
11	1120	354	325	543	358	1480	680	927	2080	940	363	269
12	447	341	340	521	494	1260	662	828	3120	830	386	250
13	563	319	344	594	490	1270	656	778	4400	637	386	216
14	453	323	332	591	576	1500	672	753	3480	697	408	211
15	401	348	309	496	624	1530	655	709	2140	809	401	205
16	376	352	347	552	810	1370	625	657	2630	761	390	205
17	389	356	404	545	743	1700	648	691	2030	702	454	198
18	378	357	397	579	737	1520	629	643	1750	641	522	354
19	388	345	417	551	742	1590	641	631	1430	528	368	296
20	405	366	438	577	703	1490	659	633	1420	573	385	355
21	370	374	458	528	741	1520	624	626	1230	519	376	383
22	362	368	469	514	833	1630	649	607	1220	493	258	378
23	366	368	461	480	760	1610	691	661	1210	479	358	350
24	352	352	386	536	756	1330	1300	672	1460	704	517	384
25	385	327	508	571	894	1240	1080	875	1100	590	588	408
26	394	386	509	525	829	1160	839	1480	971	2130	375	878
27	406	313	494	497	1210	1110	1330	1300	849	482	346	872
28	432	317	483	503	2290	1040	1300	1100	920	405	355	581
29	454	330	481	563	---	1020	1690	923	1050	443	384	407
30	402	344	440	560	---	1050	946	747	982	525	381	331
31	348	---	482	572	---	1050	---	730	---	501	344	---
MONTH	410	358	392	656	695	1450	872	883	1670	809	410	363

07152500 ARKANSAS RIVER AT RALSTON, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	370	470	630	680	200	720	240	220	510	280	400
2	140	400	460	700	670	150	680	390	230	430	240	430
3	180	400	480	540	650	180	710	430	160	390	200	460
4	220	410	500	430	590	240	800	470	190	280	190	440
5	230	440	490	480	650	300	830	520	110	290	140	360
6	260	430	480	420	590	320	850	580	130	410	150	250
7	280	440	520	300	590	400	740	590	140	300	190	320
8	280	440	500	230	690	450	810	630	190	380	220	400
9	280	450	510	250	520	360	800	570	230	270	160	500
10	300	450	510	290	530	290	680	590	330	210	140	460
11	180	450	520	280	550	310	620	710	380	180	180	460
12	76	440	540	310	690	300	610	690	500	180	220	420
13	85	420	550	410	590	340	650	650	470	170	250	390
14	75	430	530	460	770	410	700	610	430	250	290	400
15	90	470	510	420	880	430	710	570	380	310	300	420
16	110	470	500	520	790	400	670	520	470	350	320	470
17	150	470	560	510	500	520	700	550	310	400	350	420
18	180	470	530	570	520	480	650	530	280	430	410	260
19	210	450	540	550	530	550	670	540	250	430	310	250
20	250	490	550	570	550	550	630	560	280	470	360	340
21	260	500	550	540	570	650	590	580	290	450	370	380
22	280	490	540	540	600	750	590	540	350	470	140	370
23	300	490	540	520	550	830	490	570	430	430	250	350
24	300	470	460	560	530	670	470	540	440	440	320	360
25	340	440	690	590	760	640	260	520	360	330	160	110
26	350	530	700	540	390	620	300	480	390	910	170	250
27	350	440	670	540	580	610	260	230	420	210	240	180
28	380	460	660	550	550	580	180	150	470	240	300	190
29	390	490	680	630	---	590	220	160	530	300	380	220
30	340	500	600	610	---	630	120	180	550	330	410	200
31	310	---	730	640	---	680	---	210	---	300	390	---
MONTH	240	450	550	490	610	470	590	490	330	360	260	350

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	774	1150	1030	1470	1990	6510	3560	2940	2100	3190	1530	1030
2	789	1190	1010	1690	1990	4690	3260	3480	1960	4150	1770	1080
3	804	1180	1040	3010	1920	3980	3310	3410	2380	4300	1400	1110
4	838	1170	1050	2650	1740	4270	3550	3340	6270	2250	1340	1090
5	805	1180	1020	2950	1870	4370	3660	3430	3990	2180	932	1070
6	844	1150	1000	5000	1670	3970	3590	3470	3460	2970	784	983
7	826	1160	1080	4390	1430	4440	3050	3320	3130	2410	1010	1120
8	903	1140	1020	2280	1480	5670	3210	3240	4610	3490	1310	948
9	1020	1140	1040	1930	980	5310	2960	2820	4970	3470	1030	948
10	2370	1110	1050	1800	860	4530	2470	2820	6960	3460	918	769
11	3070	1090	1010	1590	1120	4380	2210	3190	6270	2560	994	826
12	980	1040	1060	1550	1680	3720	2130	2820	9650	2270	1090	763
13	1280	975	1070	1810	1560	3780	2180	2590	13560	1730	1110	654
14	987	987	1030	1820	2060	4560	2300	2430	10640	2000	1200	640
15	929	1070	957	1510	2340	4680	2260	2210	6480	2390	1180	626
16	926	1080	1080	1710	2910	4170	2110	2040	8110	2280	1160	632
17	1030	1100	1260	1690	2300	5270	2220	2150	6000	2130	1360	604
18	1030	1100	1230	1810	2290	4700	2090	2000	5140	1960	1590	1020
19	1090	1060	1300	1720	2310	4960	2160	1970	4120	1610	1090	855
20	1170	1130	1370	1810	2190	4640	2160	1970	4150	1760	1160	1070
21	1070	1160	1430	1640	2320	5070	1990	1980	3600	1590	1140	1160
22	1060	1140	1460	1600	2670	5730	2060	1890	3660	1520	665	1140
23	1080	1140	1440	1490	2370	5920	2140	2070	3690	1470	1030	1050
24	1040	1080	1190	1670	2350	4470	4000	2090	4470	2160	1540	1160
25	1150	1000	1730	1820	3170	4100	3140	2720	3300	1760	1570	1010
26	1180	1200	1740	1640	2510	3770	2480	4550	2950	8070	1010	2520
27	1220	960	1660	1550	3820	3590	3840	3700	2590	1350	992	2390
28	1310	977	1610	1570	7140	3270	3560	2900	2830	1160	1050	1600
29	1380	1020	1630	1840	---	3230	4770	2470	3270	1310	1160	1150
30	1200	1070	1410	1800	---	3460	2370	2030	3060	1560	1160	920
31	1030	---	1680	1890	---	3570	---	2040	---	1480	1040	---
MONTH	1130	1100	1250	2020	2250	4480	2830	2710	4910	2450	1170	1060

07152500 ARKANSAS RIVER AT RALSTON, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	956	1190	1500	1560	552	1610	662	610	1290	737	1020
2	423	1030	1170	1580	1540	447	1570	991	628	1090	657	1100
3	506	1020	1210	1340	1520	511	1600	1090	477	1000	556	1160
4	605	1050	1250	1110	1440	662	1720	1180	528	743	526	1120
5	633	1110	1240	1220	1520	789	1760	1310	351	766	431	927
6	697	1090	1210	1070	1450	847	1790	1430	405	1040	445	668
7	737	1120	1300	783	1450	1010	1640	1450	415	789	535	841
8	745	1120	1260	633	1570	1140	1740	1490	542	973	610	1040
9	754	1140	1280	674	1300	933	1720	1420	628	714	463	1260
10	789	1150	1290	777	1330	772	1570	1450	864	593	423	1160
11	524	1150	1310	737	1380	812	1490	1600	968	508	516	1160
12	274	1120	1350	824	1570	800	1470	1570	1270	519	610	1080
13	293	1070	1370	1060	1450	881	1530	1530	1200	500	668	991
14	271	1090	1320	1170	1690	1040	1590	1470	1100	668	766	1030
15	306	1190	1280	1080	1830	1090	1600	1410	973	806	783	1070
16	357	1190	1260	1300	1700	1010	1550	1310	1190	916	829	1190
17	454	1200	1390	1280	1260	1310	1580	1360	812	1010	904	1080
18	507	1180	1340	1420	1310	1220	1530	1320	754	1090	1050	691
19	587	1150	1360	1370	1330	1370	1550	1360	674	1090	812	685
20	685	1240	1380	1420	1370	1380	1500	1390	743	1180	927	968
21	691	1250	1360	1350	1420	1530	1450	1430	760	1150	962	979
22	743	1240	1350	1350	1460	1650	1440	1350	916	1190	413	950
23	795	1230	1360	1310	1370	1760	1240	1420	1090	1110	668	910
24	789	1200	1160	1410	1330	1540	1190	1350	1120	1130	835	933
25	875	1120	1570	1450	1660	1510	703	1300	933	852	463	362
26	910	1320	1580	1350	1000	1490	800	1200	1000	1860	483	668
27	910	1110	1540	1340	1430	1470	691	633	1070	582	662	518
28	968	1170	1540	1370	1380	1430	520	446	1180	651	795	536
29	1000	1230	1570	1490	---	1450	599	472	1320	800	973	616
30	893	1260	1460	1470	---	1500	377	504	1380	852	1050	555
31	824	---	1630	1510	---	1570	---	576	---	783	1010	---
MONTH	642	1150	1350	1220	1450	1140	1370	1210	863	911	696	908

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2480	2970	2600	3490	4590	18340	8010	8010	5800	8010	4100	2640
2	2380	3060	2550	3850	4630	13890	7490	8960	5370	10580	4820	2760
3	2310	3030	2620	7540	4520	11420	7480	8700	6940	11070	3950	2810
4	2320	2990	2640	6750	4280	11620	7650	8450	17820	6020	3820	2770
5	2210	3000	2570	7450	4390	11570	7760	8610	12780	5790	2790	2780
6	2280	2930	2540	12770	4100	10420	7540	8600	10540	7600	2330	2670
7	2210	2960	2720	11630	3510	11410	6780	8110	9470	6390	2860	2930
8	2410	2900	2570	6240	3400	14410	6860	7730	13040	9010	3610	2430
9	2710	2890	2610	5240	2460	13780	6370	7040	13660	9330	3030	2390
10	6280	2820	2630	4790	2160	12040	5670	6900	18220	9590	2770	1950
11	8740	2760	2530	4240	2790	11550	5300	7220	16200	7350	2840	2090
12	3520	2660	2650	4070	3850	9830	5150	6450	24290	6490	3020	1950
13	4420	2490	2680	4630	3820	9870	5110	6060	34280	4990	3010	1680
14	3570	2520	2590	4610	4490	11680	5240	5870	27110	5450	3180	1640
15	3150	2720	2410	3870	4860	11940	5100	5520	16710	6310	3130	1600
16	2950	2750	2710	4300	6310	10700	4870	5120	20530	5930	3050	1600
17	3040	2770	3150	4250	5790	13220	5050	5380	15830	5470	3540	1540
18	2960	2780	3090	4510	5740	11870	4900	5010	13690	5000	4070	2760
19	3030	2690	3250	4290	5780	12400	5000	4920	11170	4110	2870	2310
20	3160	2850	3420	4490	5480	11610	5130	4930	11090	4460	3000	2770
21	2890	2910	3570	4110	5780	11870	4860	4880	9590	4040	2930	2990
22	2830	2870	3650	4000	6490	12670	5050	4730	9520	3840	2020	2950
23	2850	2870	3590	3740	5920	12570	5380	5150	9400	3730	2800	2730
24	2750	2740	3010	4170	5890	10380	10120	5240	11370	5490	4040	3000
25	3000	2550	3960	4450	6970	9700	8460	6820	8560	4600	4600	3200
26	3070	3010	3960	4090	6470	9030	6550	11500	7580	16570	2940	6850
27	3170	2440	3850	3880	9450	8680	10370	10140	6620	3770	2700	6820
28	3370	2470	3760	3920	17840	8100	10150	8600	7170	3160	2770	4550
29	3540	2580	3740	4390	---	7920	13210	7220	8190	3460	3000	3180
30	3130	2680	3420	4360	---	8200	7410	5840	7650	4100	2970	2590
31	2710	---	3760	4460	---	8200	---	5710	---	3910	2690	---
MONTH	3210	2790	3060	5120	5420	11320	6800	6880	13010	6310	3200	2830

07153000 BLACK BEAR CREEK AT PAWNEE, OKLA.

LOCATION.--Lat 36°20'37", long 96°47'57", on east line of SE1/4NE1/4 sec.31, T.22 N., R.5 E., Pawnee County, at gaging station at bridge on State Highway 18 in north Pawnee, 300.0 ft (91.4 m) downstream from Skedee Creek, and at mile 23.4 (37.6 km).

DRAINAGE AREA.--576 sq mi (1,491.8 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.								
21...	.70	280	72	0	19	700	1.7	1410
DEC.								
21...	8.8	160	126	0	18	400	2.2	930
JAN.								
13...	6.3	98	80	0	16	230	1.4	522
FEB.								
03...	2.0	100	140	0	25	220	.30	609
24...	11	110	166	0	41	220	5.4	711
MAR.								
19...	1.0	96	114	0	21	200	1.3	541
APR.								
23...	509	400	266	0	49	920	1.2	1900
MAY								
13...	19	100	132	0	23	210	.10	554
JUNE								
09...	148	23	74	0	13	41	1.1	162
JULY								
09...	5.2	9.4	68	0	9.7	11	.20	94
28...	33	--	--	--	--	--	--	--
AUG.								
18...	13	200	136	0	27	460	.20	970

07153150 KEYSTONE LAKE NEAR CLEVELAND, OKLA.

LOCATION.--Lat 36°14'30", long 96°21'40", in SW1/4SW1/4 sec.32, T.21 N., R.9 E., Pawnee County, 0.4 mi (0.6 km) upstream from Cowskin Creek, and 6.2 mi (10.0 km) southeast of Cleveland.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESER- VOIR STORAGE (AC-FT)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.								
21...	708000	160	152	0	87	240	1.2	660
NOV.								
09...	697400	140	142	0	80	220	.60	592
DEC.								
03...	607400	180	178	0	97	270	.90	738
JAN.								
13...	580000	220	170	0	120	340	.40	876
FEB.								
03...	578000	220	180	0	99	340	.20	978
24...	569000	220	182	0	110	340	1.3	954
MAR.								
18...	630700	220	214	0	100	320	.20	946
APR.								
19...	554500	340	212	0	170	510	.70	1300
MAY								
12...	579300	240	162	0	130	350	.30	896
JUNE								
09...	678800	160	150	0	97	240	.60	662
JULY								
09...	617000	210	132	0	81	310	1.5	752
28...	596400	--	--	--	--	--	--	--
AUG.								
18...	564700	170	148	0	82	250	.20	672
SEP.								
10...	590400	--	--	--	--	--	--	--
29...	655900	130	132	0	58	190	.40	533

07153000 BLACK BEAR CREEK AT PAWNEE, OKLA.

PERIOD OF RECORD.--Chemical analyses: November 1951 to September 1953, October 1955 to September 1959, water years 1961-62 (partial record station), October 1962 to August 1964, October 1964 to August 1966, March 1966 to current year.

REMARKS.--No flow Nov.9-Dec.8, Dec.11-14, Apr.15, Sept.1-3.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
21...	1.92	2.66	460	401	5.7	2380	7.3
DEC.							
21...	1.26	22.1	350	247	3.7	1610	7.8
JAN.							
13...	.71	8.87	180	114	3.2	924	7.0
FEB.							
03...	.83	3.28	220	105	2.9	992	7.6
24...	.97	21.1	260	124	3.0	1040	7.8
MAR.							
19...	.74	1.46	190	96	3.0	871	7.7
APR.							
23...	2.58	2610	690	472	6.6	3230	7.8
MAY							
13...	.75	28.4	220	112	2.9	983	7.5
JUNE							
09...	.22	64.7	80	19	1.1	290	7.2
JULY							
09...	.13	1.31	58	2	.5	163	7.2
28...	--	--	--	--	--	1830	--
AUG.							
18...	1.32	34.0	350	240	4.7	1720	7.6

07153150 KEYSTONE LAKE NEAR CLEVELAND, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TUR-BID-ITY (MG/L)
OCT.							
21...	.90	210	85	4.8	1180	7.7	--
NOV.							
09...	.81	190	74	4.4	1100	7.7	--
DEC.							
03...	1.00	240	94	5.1	1330	7.7	--
JAN.							
13...	1.19	260	121	5.9	1560	7.8	--
FEB.							
03...	1.33	270	122	5.8	1580	7.0	--
24...	1.30	270	121	5.8	1570	7.6	--
MAR.							
18...	1.29	280	104	5.7	1580	7.0	--
APR.							
19...	1.77	330	160	--	2220	7.6	15
MAY							
12...	1.22	250	120	6.6	1620	7.8	20
JUNE							
09...	.90	210	87	4.8	1190	7.6	25
JULY							
09...	1.02	180	72	6.8	1360	7.7	25
28...	--	--	--	--	1360	--	--
AUG.							
18...	.91	190	69	5.4	1220	7.5	20
SEP.							
10...	--	--	--	--	919	--	--
29...	.72	160	52	4.5	951	7.2	55

07157950 CIMARRON RIVER NEAR BUFFALO, OKLA.

LOCATION.--Lat 36°55'28", long 99°23'56", in NW1/4SW1/4 sec.7, T.28 N., R.20 W., Harper County, at bridge on U.S. Highway 64, 7.0 mi (11.3 km) downstream from gaging station, 14.0 mi (22.5 km) east of Buffalo, and at mile 289.0 (465.0 km).

DRAINAGE AREA.--11,930 sq mi (30,898.7 km²), of which 4,813 sq mi (12,465.7 km²) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
19...	.20	9400	86	0	1200	14000	--	26000
NOV.								
02...	14	11000	98	0	720	17000	--	29100
09...	19	3400	110	0	400	5100	--	9580
16...	23	1100	110	0	410	1600	1.2	3330
23...	39	1200	104	0	320	1800	.60	3730
28...	32	840	108	0	260	1300	.90	2630
DEC.								
07...	20	990	126	0	300	1500	.00	3070
14...	9.3	2200	112	0	400	3400	.40	6380
21...	22	1600	116	0	320	2500	.90	4700
28...	29	2000	118	0	340	3100	.40	5820
JAN.								
04...	20	11000	108	0	700	17000	--	31500
11...	14	9300	124	0	650	14000	--	25700
19...	114	1000	136	0	350	1500	4.9	3400
25...	122	710	150	8	220	1000	2.5	2300
FEB.								
01...	75	820	130	2	240	1200	1.1	2550
09...	65	3200	130	0	340	5000	.40	9120
15...	124	990	124	4	320	1400	1.8	2950
26...	211	17000	158	0	700	27000	--	45600
MAR.								
01...	296	2800	150	0	330	4300	.70	8190
08...	200	2400	132	0	320	3800	.40	7250
15...	176	1100	128	0	250	1700	.90	3440
22...	81	800	108	0	240	1200	1.3	2520
29...	80	860	120	0	260	1300	1.0	2690
APR.								
05...	49	1100	110	2	320	1600	.20	3400
12...	30	2100	118	0	600	3100	.40	5910
19...	33	3700	88	2	420	5800	--	10500
26...	56	3400	112	0	480	5400	--	9860
MAY								
03...	37	2900	104	0	430	4400	1.7	8340
10...	20	2400	96	0	430	3600	1.5	6930
17...	2.6	3000	82	0	520	4600	.90	8760
23...	16	10000	92	0	800	16000	--	27300
31...	4.4	5400	76	0	830	8400	--	15700
JUNE								
07...	.07	5700	96	0	580	8900	--	17000
14...	26	4100	162	8	500	6200	--	11700
21...	5.7	7900	106	0	700	12000	--	21000
AUG.								
02...	.20	5800	98	0	790	9100	--	17000
09...	81	2100	154	6	170	3300	.40	6340
16...	47	4800	130	0	400	7500	--	13500
23...	3.4	5400	80	0	820	8600	--	16300
SEP.								
27...	6.7	13000	106	0	1200	20000	--	34900

07157950 CIMARRON RIVER NEAR BUFFALO, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1959 to September 1963, July 1968 to current year. Water temperatures: July 1968 to current year.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station. No flow Oct. 1-7, 11-18, 25-29, June 19, 25-29, July 2-22, 24-27, Aug. 3-5, Aug. 25-Sept. 16, Sept. 20-21.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
19...	35.4	14.0	1300	1200	113	38200	7.8
NOV.							
02...	39.6	1100	1100	1020	144	42800	8.0
09...	13.0	491	620	530	59	15500	8.2
16...	4.53	207	430	340	23	5720	8.2
23...	5.07	393	440	355	25	6330	8.2
28...	3.58	227	360	271	19	4530	8.2
DEC.							
07...	4.18	166	420	317	21	5380	8.2
14...	8.68	160	540	448	41	11000	8.2
21...	6.39	279	450	355	33	8160	8.2
28...	7.92	456	470	373	40	9970	8.2
JAN.							
04...	42.8	1700	1000	911	151	44000	8.1
11...	35.0	971	1000	898	128	36600	8.2
19...	4.62	1050	420	308	21	5510	8.3
25...	3.13	758	300	170	18	3900	8.4
FEB.							
01...	3.47	506	350	240	19	4530	8.4
09...	12.4	1600	540	430	60	15200	8.3
15...	4.01	988	320	210	24	5120	8.4
26...	62.0	26000	1200	1100	214	63300	8.3
MAR.							
01...	11.1	6550	490	370	55	13300	8.3
08...	9.86	3920	480	370	48	11800	8.3
15...	4.68	1640	360	260	25	5820	8.2
22...	3.43	551	320	230	19	4280	8.3
29...	3.66	581	340	240	20	4540	8.2
APR.							
05...	4.62	450	410	320	24	5690	8.4
12...	8.04	479	480	380	42	9780	8.3
19...	14.3	936	540	460	70	17000	8.4
26...	13.4	1490	640	550	59	16100	8.2
MAY							
03...	11.3	833	540	460	54	13300	8.3
10...	9.42	374	570	490	44	11000	8.2
17...	11.9	61.5	630	560	52	14000	8.3
23...	37.1	1180	1200	1100	126	39200	8.0
31...	21.4	187	1100	1000	71	23800	8.0
JUNE							
07...	23.1	3.21	1100	1000	75	25000	8.1
14...	15.9	442	770	620	64	18300	8.5
21...	28.6	323	1000	910	109	31100	8.1
AUG.							
02...	23.1	9.18	940	860	82	25000	8.2
09...	8.62	1390	350	210	49	10600	8.5
16...	18.4	1710	570	460	88	20600	8.3
23...	22.2	150	980	910	75	23900	8.1
SEP.							
27...	47.5	631	1300	1200	157	46900	7.5

07157950 CIMARRON RIVER NEAR BUFFALO, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	UCT	NUV	UEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	40100	8950	6760	4330	13800	5440	13600	27100	44100	11700	---
2	---	38100	5710	5110	4480	13800	5730	18700	25500	---	26100	---
3	---	19600	5960	44000	6590	16400	5120	17000	25600	---	---	---
4	---	10300	6110	42000	19200	15300	5910	18300	40200	---	---	---
5	---	6070	5270	13400	31300	18100	5470	13400	29200	---	---	---
6	---	6680	5890	17200	17700	14600	5610	12700	17500	---	52300	---
7	---	9990	5460	9730	14200	11300	6090	12100	24900	---	10600	---
8	---	8810	5500	7210	7820	11300	5720	12100	72100	---	10500	---
9	67700	14800	9120	17400	8320	11500	5830	13500	72200	---	10600	---
10	65500	7800	17600	34000	11400	14000	6150	12000	34600	---	9220	---
11	---	7550	26700	3600	12800	9460	6420	15700	27700	---	7510	---
12	---	9310	16400	36500	7660	8700	8380	12200	25500	---	3270	---
13	---	7850	12200	23300	3880	7900	10800	10400	25500	---	5120	---
14	---	12700	10400	28700	5850	6700	8050	11000	18400	---	16900	---
15	---	9170	15800	31100	4970	5040	7000	11800	23100	---	15900	---
16	---	6020	14000	19200	5590	8400	7070	14000	21600	---	30400	---
17	---	6250	5180	23400	5030	3920	11700	13000	22800	---	14000	---
18	---	5870	9820	22800	7220	5660	39600	14900	28500	---	7430	---
19	39900	7160	7460	5510	28400	5490	29400	18200	---	---	10600	---
20	43600	7900	6800	5300	10200	4360	18700	16500	31200	---	11600	---
21	45400	5230	8760	4090	4920	4330	18000	14100	31200	---	16000	---
22	46200	6140	12300	3680	6110	4400	8780	72800	26300	---	24900	---
23	47200	6200	9670	3240	7000	4670	15200	39400	13100	---	25200	61600
24	44600	6630	9900	3620	10500	4410	17000	28100	19500	---	24500	24600
25	---	5760	7670	3700	46600	5910	14900	31200	---	---	---	24600
26	---	6400	9900	3500	62900	6230	17200	21300	---	---	---	47600
27	---	6150	8760	3350	48900	5870	17400	33900	---	---	---	47700
28	---	4530	8770	4240	13900	5290	14500	19600	---	---	---	47700
29	---	4770	8410	5990	---	4820	14800	23100	---	---	---	40800
30	39500	7370	6660	6330	---	4580	24300	23300	44000	---	---	40100
31	38800	---	6220	5450	---	4630	---	23200	---	7560	---	---
MONTH	---	10040	9590	14330	14920	8290	12210	19710	30300	---	---	---

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.0	8.5	3.5	2.0	3.5	10.0	16.5	21.5	22.5	---	---
2	---	5.0	7.5	2.5	2.5	2.0	10.0	16.5	21.5	---	---	---
3	---	4.5	8.0	1.0	5.0	3.0	10.0	15.5	20.0	---	---	---
4	---	6.0	5.5	0.5	---	4.5	9.0	16.5	21.0	---	---	---
5	---	7.0	6.0	1.0	---	6.0	7.5	15.0	23.0	---	---	---
6	---	9.5	4.5	1.5	---	5.5	9.0	16.5	21.0	---	---	---
7	---	10.0	6.0	1.5	---	5.0	10.5	15.5	22.0	---	---	---
8	---	10.5	6.5	1.5	---	6.5	12.5	15.5	20.5	---	---	---
9	---	9.0	7.5	1.5	---	8.0	13.5	16.5	20.5	---	---	---
10	---	8.5	7.5	---	1.5	---	13.5	18.0	20.5	---	27.5	---
11	---	7.5	2.5	---	5.0	---	16.5	13.0	21.5	---	24.0	---
12	---	6.5	3.0	---	4.0	---	18.0	12.0	21.5	---	24.0	---
13	---	5.5	3.5	---	4.5	---	14.0	15.5	21.0	---	22.5	---
14	---	3.5	5.0	---	6.0	---	13.0	16.5	21.0	---	22.0	---
15	---	4.0	5.0	---	7.0	---	14.5	17.5	24.0	---	22.0	---
16	---	5.5	4.5	---	8.0	---	15.5	18.5	23.5	---	22.0	---
17	---	7.5	4.5	---	7.5	---	16.0	21.0	24.0	---	23.0	12.0
18	---	7.5	4.5	---	11.0	---	15.0	15.5	24.5	---	23.0	9.5
19	13.5	7.5	2.5	---	7.5	---	16.5	16.0	---	---	23.0	14.5
20	14.5	6.0	3.0	4.5	4.0	---	14.5	16.5	21.0	---	22.0	---
21	15.5	8.0	4.0	3.5	1.5	---	16.5	17.5	23.5	---	22.0	---
22	15.0	4.5	4.0	3.5	2.0	---	16.0	21.0	24.0	---	24.0	12.5
23	15.5	2.5	2.0	2.5	2.0	---	12.5	20.5	24.0	24.0	25.0	13.0
24	14.0	3.0	1.5	4.0	1.5	---	16.0	16.0	23.5	---	24.0	14.0
25	---	5.0	1.5	5.0	1.0	---	17.5	18.5	---	---	---	18.0
26	---	6.0	2.0	4.5	0.5	---	18.0	17.5	---	---	---	19.5
27	---	4.0	3.0	3.5	1.5	12.5	16.5	18.0	---	---	---	21.0
28	---	4.5	3.0	5.0	2.0	12.5	15.0	19.0	---	---	---	23.0
29	---	8.5	3.0	6.5	---	12.5	12.0	19.0	---	---	---	22.0
30	9.5	11.0	3.5	6.0	---	13.0	15.5	19.0	23.0	---	---	19.0
31	8.0	---	4.0	3.0	---	13.0	---	20.5	---	---	---	---
MONTH	---	6.5	4.5	---	4.0	---	14.0	17.0	22.0	---	---	---

07157950 CIMARRON RIVER NEAR BUFFALO, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	810	330	300	190	390	240	390	560	910	360	---
2	---	760	260	230	200	390	260	460	540	---	550	---
3	---	470	270	910	300	430	230	430	540	---	---	---
4	---	350	270	860	460	410	270	450	810	---	---	---
5	---	270	240	390	620	450	250	390	590	---	---	---
6	---	300	260	440	440	400	250	380	480	---	1100	---
7	---	340	240	340	400	360	270	370	540	---	350	---
8	---	330	250	310	310	360	260	370	---	---	350	---
9	---	400	330	440	320	360	260	390	---	---	350	---
10	940	310	440	650	360	390	280	370	670	---	330	---
11	---	310	560	160	380	340	290	420	570	---	310	---
12	---	330	430	720	310	330	320	370	540	---	150	---
13	---	320	370	510	170	320	350	350	540	---	230	---
14	---	380	350	580	260	300	320	360	450	---	430	---
15	---	330	420	620	220	230	300	370	510	---	420	---
16	---	270	390	460	250	200	310	390	490	---	610	---
17	---	280	230	520	230	180	360	380	510	---	390	---
18	---	260	340	510	310	250	790	410	580	---	310	---
19	800	310	310	250	580	250	590	450	---	---	350	---
20	900	320	300	240	350	200	460	430	620	---	360	---
21	940	230	330	220	220	190	450	400	620	---	420	---
22	960	280	370	170	270	200	330	---	550	---	540	---
23	990	280	340	150	300	210	410	790	380	---	540	---
24	920	300	340	160	350	200	430	580	470	---	530	530
25	---	260	310	170	970	270	410	620	---	---	---	530
26	---	290	340	160	---	280	440	490	---	---	---	1000
27	---	280	330	150	1000	260	440	650	---	---	---	1000
28	---	200	330	190	390	240	400	470	---	---	---	1000
29	---	210	320	270	---	220	400	510	---	---	---	830
30	790	310	300	280	---	210	530	510	910	---	---	810
31	770	---	280	240	---	210	---	510	---	310	---	---
MONTH	---	340	330	370	380	290	360	450	---	---	---	---

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	26	30	40	39	340	48	44	5.3	16	11	---
2	---	29	24	29	41	298	44	48	4.0	---	1.9	---
3	---	18	26	113	62	251	37	43	1.2	---	---	---
4	---	14	24	46	106	222	35	45	46	---	---	---
5	---	12	19	10	107	259	32	34	22	---	---	---
6	---	15	18	8.2	72	245	32	26	6.8	---	36	---
7	---	17	13	6.4	62	230	33	22	2.5	---	46	---
8	---	17	17	7.0	48	193	28	21	---	---	91	---
9	---	21	18	12	56	200	26	22	---	---	81	---
10	9.2	16	20	21	70	223	25	20	22	---	53	---
11	---	16	12	6.5	121	186	26	21	7.2	---	54	---
12	---	16	9.0	33	229	169	26	17	0.90	---	30	---
13	---	15	7.1	28	83	147	28	15	44	---	39	---
14	---	18	8.7	24	98	143	23	13	47	---	59	---
15	---	22	18	37	75	107	22	9.3	25	---	46	---
16	---	21	35	19	78	89	22	6.6	16	---	82	---
17	---	29	14	25	67	75	31	2.7	9.2	---	67	---
18	---	27	20	47	91	81	97	3.0	0.06	---	48	---
19	0.19	31	20	71	205	58	58	3.9	---	---	41	---
20	0.75	28	17	90	136	48	76	2.9	8.0	---	32	---
21	0.17	20	20	101	89	45	51	3.6	11	---	22	---
22	0.18	22	26	86	103	43	35	---	7.0	---	14	---
23	0.02	23	23	63	107	45	91	36	19	---	4.9	---
24	0.02	27	28	66	113	43	82	17	7.2	---	0.75	29
25	---	20	29	56	315	58	66	14	---	---	---	43
26	---	22	33	45	---	63	66	9.5	---	---	---	43
27	---	22	24	36	470	63	59	9.3	---	---	---	16
28	---	17	24	43	369	56	50	4.5	---	---	---	3.5
29	---	18	21	57	---	47	49	3.2	---	---	---	0.33
30	5.3	27	45	62	---	44	64	6.0	32	---	---	0.04
31	19	---	42	51	---	46	---	6.1	---	24	---	---
MONTH	---	21	22	43	126	133	45	18	---	---	---	---

07157950 CIMARRON RIVER NEAR BUFFALO, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	15600	2800	2000	1200	4500	1600	4400	10100	17400	3700	---
2	---	14800	1600	1400	1200	4500	1700	6500	9400	---	9600	---
3	---	6900	1700	17300	2000	5500	1400	5700	9400	---	---	---
4	---	3200	1800	16500	6700	5000	1700	6300	15700	---	---	---
5	---	1800	1500	4300	11900	6200	1600	4300	11000	---	---	---
6	---	2000	1700	5800	6000	4700	1600	4100	6000	---	20900	---
7	---	3100	1600	3000	4600	3600	1800	3900	9100	---	3400	---
8	---	2700	1600	2200	2400	3600	1700	3900	---	---	3300	---
9	27400	4800	2800	5900	2600	3700	1700	4400	---	---	3600	---
10	18000	2400	6000	13000	3600	4500	1800	3800	13300	---	2900	---
11	---	2300	9900	920	4100	3000	1900	5200	10300	---	2300	---
12	---	2900	5500	14100	2300	2700	2600	3900	9400	---	800	---
13	---	2400	3900	8400	1000	2400	3400	3300	9400	---	1400	---
14	---	4100	3300	10800	1700	2000	2500	3500	6300	---	5700	---
15	---	2900	5200	11800	1400	1400	2100	3800	8400	---	5300	---
16	---	1800	4500	6700	1600	1200	2100	4500	7700	---	11500	---
17	---	1800	1500	8500	1400	1000	3700	4200	8200	---	4500	---
18	---	1700	3100	8200	2200	1600	15400	4800	10700	---	2200	---
19	15600	2200	2300	1600	10600	1600	11100	6300	---	---	3600	---
20	17100	2400	2000	1500	3200	1200	6500	5500	11800	---	3700	---
21	17900	1500	2700	1400	1400	1200	6200	4600	11800	---	5300	---
22	18300	1800	3900	940	1800	1200	2700	---	9700	---	9100	---
23	18700	1800	3000	790	2100	1300	5000	15300	4200	---	9300	24800
24	17500	2000	3100	920	3100	1200	5700	10500	6800	---	9000	9000
25	---	1700	2300	950	18400	1700	8800	11800	---	---	---	9000
26	---	1900	3100	880	25400	1800	5800	7600	---	---	---	18900
27	---	1800	2700	830	19400	1700	5900	13000	---	---	---	18900
28	---	1200	2700	1100	4500	1500	4700	6900	---	---	---	18900
29	---	1300	2600	1800	---	1300	4800	8400	---	---	---	15900
30	15400	2200	2000	1900	---	1300	8900	8400	17300	---	---	15600
31	15100	---	1800	1600	---	1300	---	8400	---	2300	---	---
MONTH	---	3300	3000	5100	5300	2600	4100	6200	---	---	---	---

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	507	255	266	237	3080	306	490	95	305	111	---
2	---	559	156	183	251	3400	286	681	68	---	38	---
3	---	259	169	2150	412	3240	234	573	21	---	---	---
4	---	131	159	889	1530	2700	227	629	889	---	---	---
5	---	77	121	117	2050	3600	207	385	415	---	---	---
6	---	97	116	110	978	2890	205	286	92	---	676	---
7	---	152	84	58	721	2300	216	230	42	---	843	---
8	---	140	106	50	360	1930	178	220	---	---	868	---
9	1050	247	153	160	449	2030	169	247	---	---	778	---
10	175	122	275	422	705	2570	165	207	430	---	457	---
11	---	117	216	37	1310	1630	169	266	131	---	393	---
12	---	141	115	647	1700	1390	209	179	16	---	164	---
13	---	116	75	456	484	1130	268	142	760	---	246	---
14	---	198	82	436	637	987	180	132	667	---	784	---
15	---	193	226	700	466	673	153	96	406	---	583	---
16	---	138	404	271	503	541	155	76	250	---	1550	---
17	---	188	87	412	419	438	312	29	149	---	771	---
18	---	175	183	755	646	524	1870	35	1.2	---	366	---
19	3.0	215	146	456	3760	369	1070	54	---	---	389	---
20	14	215	115	573	1270	293	1080	37	153	---	329	---
21	3.4	128	168	630	556	271	699	42	208	---	272	---
22	3.5	146	277	494	676	261	293	---	123	---	237	---
23	0.50	152	204	341	736	275	1100	704	205	---	85	2010
24	0.47	181	252	373	1070	250	1080	312	105	---	13	486
25	---	130	214	320	5970	376	785	278	---	---	---	729
26	---	143	302	254	9590	410	880	147	---	---	---	815
27	---	146	198	199	8860	410	798	186	---	---	---	306
28	---	104	198	258	4230	357	584	67	---	---	---	66
29	---	114	168	373	---	289	584	52	---	---	---	6.5
30	108	192	299	408	---	268	1080	98	608	---	---	0.84
31	371	---	276	324	---	285	---	100	---	179	---	---
MONTH	---	181	187	423	1810	1290	519	233	---	---	---	---

07157950 CIMARRON RIVER NEAR BUFFALO, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	27690	5470	4090	2550	8530	3250	8400	18010	31280	7200	---
2	---	26190	3420	3050	2650	8530	3440	11770	16820	---	17270	---
3	---	12440	3580	31190	3900	10170	3050	10550	16900	---	---	---
4	---	6320	3680	29390	12140	9480	3550	11470	27780	---	---	---
5	---	3650	3150	8280	21130	11320	3270	8200	19570	---	---	---
6	---	4040	3540	10670	11020	9030	3360	7830	10870	---	38630	---
7	---	6120	3270	5960	8780	6950	3660	7460	16380	---	6510	---
8	---	5380	3290	4370	4760	6950	3430	7460	---	---	6450	---
9	52440	9160	5580	10800	5870	7080	3500	8340	---	---	6510	---
10	32530	4740	10950	23140	7010	6650	3700	7390	23590	---	5640	---
11	---	4590	17710	2090	7900	5790	3870	9730	18460	---	4560	---
12	---	5700	10170	25000	4650	5310	5110	7520	16820	---	1880	---
13	---	6770	7520	15190	2270	4810	6640	6380	16820	---	3050	---
14	---	7830	6360	19200	3510	4050	4900	6760	11540	---	10480	---
15	---	5610	9790	20980	2960	3080	4240	7270	15040	---	9850	---
16	---	3620	8650	12140	3350	2600	4280	8650	13920	---	20460	---
17	---	3760	3090	15260	3000	2290	7200	8020	14810	---	8650	---
18	---	3530	6020	14810	4380	3390	27300	9220	19050	---	4510	---
19	27530	4340	4530	3300	10980	3290	19720	11390	---	---	6510	---
20	30830	4810	4110	3170	6260	2570	11770	10230	21060	---	7140	---
21	32440	3120	5350	2910	2930	2550	11250	8720	21060	---	9920	---
22	33160	3700	7580	2140	3680	2600	5360	---	17420	---	16380	---
23	34060	3730	5920	1870	4240	2770	9410	27150	8090	---	16600	46970
24	31000	4000	6070	2110	6450	2600	10550	18750	12360	---	16080	16150
25	---	3460	4660	2160	33520	3550	9220	21060	---	---	---	16150
26	---	3860	6070	2030	48130	3750	10670	13700	---	---	---	34410
27	---	3700	5350	1940	35580	3530	10800	23070	---	---	---	34500
28	---	2680	5350	2500	8590	3160	8970	12440	---	---	---	34500
29	---	2830	5130	3310	---	2860	9160	15040	---	---	---	28320
30	27230	4470	4020	3820	---	2710	15930	15190	31190	---	---	27690
31	26710	---	3750	3260	---	2740	---	15110	---	4580	---	---
MONTH	---	6330	5910	9360	9980	5050	7690	11480	---	---	---	---

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	897	502	541	517	7410	641	953	170	549	214	---
2	---	990	324	386	543	6490	594	1240	123	---	61	---
3	---	470	348	3870	838	6010	494	1050	37	---	---	---
4	---	256	328	1590	2790	5120	470	1150	1580	---	---	---
5	---	158	255	223	3650	6570	433	737	740	---	---	---
6	---	196	239	202	1790	5510	427	550	167	---	1250	---
7	---	298	176	113	1380	4450	445	443	75	---	861	---
8	---	276	222	100	719	3730	370	423	---	---	1690	---
9	3540	470	301	292	890	3920	350	473	---	---	1510	---
10	316	243	503	750	1360	4910	340	399	764	---	898	---
11	---	235	387	85	2520	3200	345	499	234	---	788	---
12	---	277	214	1150	3410	2750	418	345	28	---	387	---
13	---	232	144	820	1080	2240	520	276	1360	---	519	---
14	---	381	168	778	1320	1920	357	256	1220	---	1640	---
15	---	378	423	1250	990	1430	389	184	731	---	1098	---
16	---	283	771	492	1050	1180	312	145	451	---	2760	---
17	---	386	184	742	898	979	603	56	268	---	1470	---
18	---	362	357	1360	1300	1090	3320	67	2.1	---	694	---
19	6.7	433	293	953	6710	772	1920	98	---	---	756	---
20	26	428	233	1210	2470	639	1970	69	273	---	636	---
21	6.1	270	332	1340	1180	593	1280	80	370	---	509	---
22	6.3	299	532	1120	1390	568	579	---	221	---	424	---
23	0.92	312	400	806	1490	590	2080	1250	393	---	152	3800
24	0.84	368	491	853	2090	562	1990	557	190	---	23	872
25	---	271	428	720	10860	776	1490	495	---	---	---	1310
26	---	292	590	586	18190	841	1610	266	---	---	---	1490
27	---	300	390	465	16230	847	1460	330	---	---	---	559
28	---	224	390	566	8070	751	1110	121	---	---	---	121
29	---	245	332	706	---	618	1110	93	---	---	---	11
30	184	386	608	834	---	578	1940	176	1090	---	---	1.5
31	656	---	566	678	---	615	---	180	---	360	---	---
MONTH	---	354	369	825	3420	2510	976	432	---	---	---	---

07158000 CIMARRON RIVER NEAR WAYNOKA, OKLA.

LOCATION.--Lat 36°30'55", long 98°52'45", near center of sec.35, T.24 N., R.16 W., Woods County, at gaging station at bridge on U.S. Highway 281, 0.8 mi (1.3 km) downstream from Main Creek, 5.0 mi (8.0 km) south of Waynoka, and at mile 247.0 (397.4 km).

DRAINAGE AREA.--13,334 sq mi (34,535.1 km²), of which 4,830 sq mi (12,509.7 km²) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
12...	12	14000	122	0	850	22000	.3	36500
NOV.								
16...	7.4	8600	118	0	700	13000	.4	23100
23...	26	14000	116	0	800	22000	.5	34600
29...	29	15000	150	0	880	23000	.6	40000
DEC.								
07...	24	12000	110	0	750	19000	1.0	33600
14...	18	14000	116	0	940	21000	1.0	34600
21...	27	15000	100	0	820	23000	.8	37000
28...	17	16000	100	0	900	25000	.6	41000
JAN.								
05...	35	9500	134	0	650	15000	.8	25400
12...	31	18000	122	0	950	28000	.8	47600
19...	23	18000	102	0	980	28000	.7	47000
26...	141	3900	182	4	310	6000	.8	10600
FEB.								
01...	82	7700	110	0	540	12000	.7	20100
08...	48	16000	108	0	820	25000	.7	42600
15...	111	4600	120	0	340	7200	.8	12800
25...	269	14000	146	0	780	22000	.6	34600
MAR.								
01...	368	5800	138	0	410	9000	.8	15900
08...	334	6100	172	0	490	9400	.6	16800
15...	203	4200	128	0	480	6500	.9	11600
22...	102	4600	118	0	470	7200	.9	12500
29...	53	5500	110	0	490	8600	1.0	15000
APR.								
05...	29	5800	112	0	460	8400	.8	15000
12...	15	9300	108	0	720	15000	.7	25400
19...	15	11000	104	0	750	17000	.9	30100
26...	87	10000	86	0	690	16000	.5	27200
MAY								
03...	40	13000	100	0	810	20000	.6	35800
10...	13	14000	94	0	860	22000	.8	38000
17...	.90	14000	92	0	850	22000	.7	37600
31...	5.5	10000	86	0	760	16000	.7	27200
JUNE								
14...	28	16000	132	0	990	25000	.8	44000
21...	115	14000	158	0	850	22000	.7	36600
JULY								
05...	2.0	14000	88	0	900	22000	.7	38500
26...	18	11000	88	0	800	17000	.6	2960
AUG.								
02...	13	13000	108	0	850	20000	.6	3520
09...	53	9800	128	0	790	15000	.3	27000
16...	92	4500	142	2	700	6800	.4	1290
23...	1.0	13000	96	0	750	20000	.7	34800
SEP.								
27...	5.0	20000	114	0	940	31000	.7	54600

07158000 CIMARRON RIVER NEAR WAYNOKA, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1963, July 1968 to current year. Water temperatures: July 1968 to current year.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station. No flow Oct. 15-Nov. 12, May 18-21, 24-25, June 6-7, 25-30, July 6-22, Aug. 5-6, Aug. 27-Sept. 25, Sept. 29-30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
12...	49.6	1180	1300	1200	169	52800	8.2
NOV.							
16...	31.4	461	1100	1000	113	35400	8.1
23...	47.1	2430	1400	1300	163	52400	8.1
29...	54.4	3130	1450	1300	171	57100	8.2
DEC.							
07...	45.7	2180	1100	1000	157	49700	8.0
14...	47.1	1680	1200	1100	176	52000	8.0
21...	50.3	2700	1200	1100	188	53600	7.9
28...	55.8	1880	1400	1300	186	57100	7.9
JAN.							
05...	34.5	2400	1000	890	131	37500	8.2
12...	64.7	3980	1600	1500	196	64900	8.1
19...	63.9	2920	1700	1600	190	64000	8.1
26...	14.4	4040	570	410	71	17400	8.4
FEB.							
01...	27.3	4450	770	680	121	31300	8.1
08...	57.9	4600	1300	1200	193	60300	7.9
15...	16.9	3720	720	620	75	20200	8.0
25...	47.1	25100	1300	1200	169	52700	8.2
MAR.							
01...	21.6	15800	640	530	100	24600	8.1
08...	22.8	15200	660	520	103	25900	8.1
15...	15.8	6360	620	520	73	18900	8.1
22...	17.0	3440	630	530	80	20300	8.0
29...	20.4	2150	680	590	92	24200	8.1
APR.							
05...	20.4	1170	740	650	86	23500	8.2
12...	34.5	1030	1100	1000	122	37900	8.1
19...	40.9	1220	1200	1100	138	44500	8.2
26...	37.0	6390	1000	930	138	41200	8.2
MAY							
03...	48.7	3870	1300	1200	157	51200	8.1
10...	51.7	1330	1400	1300	163	54200	8.0
17...	51.1	91.4	1400	1300	163	53800	7.9
31...	37.0	404	1200	1100	126	40800	8.0
JUNE							
14...	60.4	3360	1700	1600	169	59800	8.1
21...	49.8	11400	1200	1100	176	51300	8.2
JULY							
05...	52.4	208	1400	1300	163	52500	8.0
26...	4.03	144	1100	1000	144	42200	8.1
AUG.							
02...	4.79	124	1400	1300	151	49100	8.1
09...	36.7	3860	950	850	138	39000	8.3
16...	1.75	320	890	770	66	19600	8.4
23...	47.3	94.0	1300	1200	157	48000	8.0
SEP.							
27...	74.3	737	1600	1500	218	71000	8.2

07158000 CIMARRON RIVER NEAR WAYNOKA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	51100	63100	31200	27000	23300	49900	36500	27100	54900	---
2	---	---	53800	47000	30700	25700	26600	53900	21400	19000	49100	---
3	---	---	52800	46000	31300	29700	25400	52000	27000	56000	50400	---
4	---	---	48500	39500	33000	29600	24000	56000	27000	56000	51500	---
5	---	---	47600	37000	26900	41300	24800	54200	33800	52500	---	---
6	---	---	44800	66800	33500	41200	29300	56700	---	---	---	---
7	---	---	48300	66300	64500	41500	28500	56500	---	---	50600	---
8	---	---	45900	68200	60000	25900	33300	56000	45500	---	46400	---
9	---	---	46300	68900	56500	26200	34000	56900	52400	---	39000	---
10	102000	---	51500	66600	64900	27600	36600	54200	42600	---	32800	---
11	74300	---	49600	66600	48000	24900	36500	54000	43200	---	37600	---
12	52800	---	50600	64900	64600	24800	38600	57500	46200	---	28300	---
13	41000	34200	52200	63500	46900	21400	38000	56200	43600	---	35300	---
14	40400	32500	51100	67100	50400	22300	48800	51900	61900	---	29400	---
15	---	17000	52000	65700	20200	19000	43000	54600	55100	---	32000	---
16	---	35400	61100	63300	27500	18700	44800	58500	42700	---	16800	---
17	---	47200	56200	62900	17700	17800	43200	53400	45400	---	22000	---
18	---	47200	62000	64100	27400	17700	36100	---	52800	---	48900	---
19	---	58500	65400	62600	25200	23200	44500	---	---	---	51100	---
20	---	64100	61600	74000	27700	22000	59600	---	34100	---	52800	---
21	---	56700	53600	68000	26600	20400	59400	---	49800	---	52900	---
22	---	52500	49300	38900	29700	20400	70500	28600	50900	---	49400	---
23	---	52400	55600	43100	37000	19300	70700	22000	54400	70600	36700	---
24	---	53900	56500	16100	45900	19400	39700	---	58500	38400	30400	---
25	---	53900	59400	15700	54400	20900	37300	---	---	46800	31500	---
26	---	50800	60900	20900	68700	20700	44500	52400	---	42200	26400	62000
27	---	57200	57100	16300	54700	25100	43700	9000	---	43000	---	74300
28	---	51000	55900	18800	22300	26300	47100	19900	---	10300	---	68300
29	---	57100	80000	21300	---	24000	45800	14300	---	54200	---	---
30	---	---	57600	26600	---	23900	50100	40700	---	42200	---	---
31	---	---	47400	26300	---	22900	---	40600	---	55000	---	---
MONTH	---	---	54380	49550	40260	24860	40920	46400	---	---	---	---

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	3.5	2.0	4.5	11.0	---	---	---	---	---
2	---	---	11.0	1.5	1.0	1.0	11.5	---	24.0	---	---	---
3	---	---	8.5	0.0	5.5	1.5	11.0	---	23.5	---	---	---
4	---	---	5.5	0.0	1.0	4.5	9.5	---	24.5	---	---	---
5	---	---	6.0	0.0	0.0	7.0	8.0	22.0	24.5	---	---	---
6	---	---	4.0	0.0	0.0	5.5	10.5	20.0	---	---	---	---
7	---	---	6.0	0.0	0.0	5.0	11.5	19.5	---	---	---	---
8	---	---	9.0	0.0	0.0	7.0	14.5	19.0	21.5	---	---	---
9	---	---	7.0	0.0	---	8.5	16.0	18.5	24.0	---	---	---
10	---	---	8.5	0.0	5.5	8.5	16.0	22.0	23.0	---	30.0	---
11	12.5	---	3.0	0.0	6.0	12.5	18.5	17.0	23.5	---	27.0	---
12	---	---	5.0	0.0	5.0	12.5	20.0	16.0	26.5	---	26.5	---
13	16.0	---	4.0	1.0	3.5	14.0	15.5	18.5	25.0	---	25.0	---
14	---	---	4.0	0.0	5.0	12.0	15.0	19.5	27.0	---	25.0	---
15	---	---	4.0	0.0	6.5	10.0	17.0	19.5	28.5	---	24.5	---
16	---	---	4.0	2.0	8.5	12.5	18.5	22.0	28.0	---	25.5	---
17	---	---	4.5	3.5	8.5	10.5	19.0	23.0	27.5	---	27.0	---
18	---	---	4.5	3.0	12.0	6.0	17.5	---	27.0	---	27.0	---
19	---	---	1.5	0.0	8.0	4.5	---	---	---	---	25.5	---
20	---	---	2.0	2.0	3.5	6.5	---	---	25.0	---	25.0	---
21	---	---	3.5	5.0	---	10.0	---	---	29.5	---	26.0	---
22	---	---	4.0	5.0	---	8.5	---	24.0	---	---	28.5	---
23	---	---	0.5	2.5	---	8.5	---	23.0	---	27.5	28.0	---
24	---	---	0.0	4.0	---	4.0	---	---	---	28.5	27.5	---
25	---	---	0.0	5.0	---	9.0	---	---	---	28.5	28.0	---
26	---	---	0.5	4.5	6.0	11.5	17.5	24.0	---	24.0	28.5	24.0
27	---	---	3.5	3.0	5.0	15.0	---	19.5	---	25.5	---	27.5
28	---	---	3.0	4.5	2.5	15.0	---	21.5	---	20.0	---	28.0
29	---	---	3.0	7.0	---	14.5	---	---	---	---	---	---
30	---	---	3.5	6.5	---	14.0	---	---	---	---	---	---
31	---	---	2.5	3.5	---	14.0	---	---	---	---	---	---
MONTH	---	---	4.0	2.0	4.5	9.0	---	---	---	---	---	---

07158000 CIMARRON RIVER NEAR WAYNOKA, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	870	1000	590	530	480	850	670	530	930	---
2	---	---	910	810	580	510	520	910	450	420	840	---
3	---	---	900	800	590	570	510	880	530	940	860	---
4	---	---	830	710	620	570	490	940	530	940	880	---
5	---	---	820	670	530	730	500	920	630	890	---	---
6	---	---	780	1100	620	730	560	950	---	---	---	---
7	---	---	830	1100	1100	740	550	950	---	---	860	---
8	---	---	800	1100	1000	510	620	940	790	---	810	---
9	---	---	800	1100	950	520	630	950	890	---	700	---
10	---	---	880	1100	1100	540	670	920	750	---	610	---
11	---	---	850	1100	830	500	670	910	760	---	680	---
12	900	---	860	1100	1100	500	690	960	800	---	550	---
13	730	630	890	1000	810	450	690	940	770	---	650	---
14	720	610	870	1100	860	460	840	880	1000	---	560	---
15	---	390	880	1100	430	420	760	920	930	---	600	---
16	---	650	1000	1000	540	410	780	980	750	---	390	---
17	---	820	940	1000	400	400	760	900	790	---	460	---
18	---	820	1000	1100	540	400	660	---	900	---	840	---
19	---	980	1100	1000	510	480	780	---	---	---	870	---
20	---	1100	1000	---	580	460	990	---	630	---	900	---
21	---	950	910	1100	520	440	990	---	850	---	900	---
22	---	890	850	700	570	440	1100	550	870	---	850	---
23	---	890	940	760	670	420	1100	460	920	1100	670	---
24	---	910	950	370	800	420	710	---	980	690	580	---
25	---	910	990	360	920	440	680	---	---	810	590	---
26	---	870	1000	440	1100	440	780	890	---	750	520	1000
27	---	960	960	380	920	500	770	210	---	760	---	---
28	---	870	940	410	460	520	820	430	---	240	---	1100
29	---	960	---	450	---	490	800	330	---	920	---	---
30	---	---	960	520	---	490	860	720	---	750	---	---
31	---	---	820	520	---	470	---	720	---	930	---	---
MONTH	---	---	910	840	720	500	730	800	---	---	---	---

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	80	107	103	658	53	99	1.4	19	55	---
2	---	---	81	138	99	601	57	135	2.2	73	30	---
3	---	---	82	175	97	601	52	103	20	76	13	---
4	---	---	77	86	101	520	45	96	6.4	17	1.2	---
5	---	---	67	63	69	645	43	69	1.4	2.4	---	---
6	---	---	51	89	76	657	47	51	---	---	---	---
7	---	---	54	73	115	689	43	38	---	---	107	---
8	---	---	45	75	108	492	40	30	56	---	206	---
9	---	---	46	91	110	486	37	33	195	---	115	---
10	---	---	73	97	132	484	32	30	298	---	116	---
11	---	---	60	109	107	404	32	25	162	---	97	---
12	29	---	49	95	201	354	28	23	89	---	90	---
13	13	10	34	93	414	305	24	21	62	---	79	---
14	3.9	5.7	31	107	428	287	32	18	66	---	23	---
15	---	7.0	36	90	172	228	25	12	266	---	19	---
16	---	21	57	87	183	211	25	9.2	97	---	84	---
17	---	19	38	84	120	194	27	0.97	45	---	76	---
18	---	15	55	83	172	161	27	---	16	---	138	---
19	---	47	104	78	176	175	42	---	---	---	99	---
20	---	88	83	---	184	151	88	---	36	---	89	---
21	---	80	64	159	99	125	101	---	173	---	36	---
22	---	70	66	194	92	112	127	12	115	---	9.1	---
23	---	62	63	395	109	98	189	0.49	50	400	1.8	---
24	---	58	64	173	211	91	320	---	11	329	19	---
25	---	44	56	151	491	87	184	---	---	116	9.6	---
26	---	37	57	171	850	81	147	2.6	---	36	1.4	55
27	---	49	46	132	715	84	114	21	---	16	---	---
28	---	52	46	133	523	81	99	17	---	66	---	1.5
29	---	72	---	119	---	70	92	8.5	---	393	---	---
30	---	---	83	109	---	60	97	14	---	203	---	---
31	---	---	66	91	---	56	---	3.9	---	123	---	---
MONTH	---	---	60	122	223	298	76	35	---	---	---	---

07158000 CIMARRON RIVER NEAR WAYNOKA, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	21400	27200	11900	10100	8600	20800	14300	10200	23200	---
2	---	---	22700	19400	11700	9600	10000	22700	7800	6800	20400	---
3	---	---	22200	18900	11900	11300	9500	21800	10100	23800	21000	---
4	---	---	20100	15700	12600	11200	8900	23800	10100	23800	21600	---
5	---	---	19700	14500	10100	16600	9200	22900	13000	22100	---	---
6	---	---	18300	29000	12800	16600	11100	24100	---	---	---	---
7	---	---	20000	28800	27900	16700	10800	24000	---	---	21100	---
8	---	---	18800	29700	25700	9700	12800	23800	18600	---	19100	---
9	---	---	19000	30000	24000	9800	13100	24200	22000	---	15500	---
10	---	---	21600	28900	26100	10400	14300	22900	17200	---	12600	---
11	---	---	20600	28900	19900	9300	14300	22800	17500	---	14800	---
12	22200	---	21100	28100	27900	9200	15300	24500	19000	---	10700	---
13	16500	13100	21900	27400	19300	7800	15000	23900	17700	---	13700	---
14	16200	12400	21400	29200	21000	8200	20300	21800	26600	---	11100	---
15	---	6000	21800	28500	7300	6800	17400	23100	23300	---	12200	---
16	---	13700	26200	27300	10300	6700	18300	25000	17300	---	5900	---
17	---	19500	23900	27100	6300	6300	17500	22500	18600	---	8100	---
18	---	19500	26700	27700	10300	6300	14100	---	22200	---	20300	---
19	---	25000	28300	27000	9800	8600	18200	---	---	---	21400	---
20	---	27700	26500	---	10400	8100	25500	---	13100	---	22200	---
21	---	24100	22600	29600	10000	7400	25400	---	20700	---	22300	---
22	---	22100	20500	15400	11300	7400	30800	10800	21300	---	20500	---
23	---	22000	23600	17500	14500	6900	30900	8100	23000	30900	14400	---
24	---	22700	24000	5600	18800	7000	15800	---	25000	15200	11600	---
25	---	22700	25400	5400	23000	7600	14700	---	---	19300	12000	---
26	---	21200	26100	7600	29900	7500	18200	22000	---	17000	9900	26700
27	---	24300	24300	5700	23100	9300	17800	2800	---	17400	---	---
28	---	21300	23700	6700	8200	9800	19400	7200	---	3300	---	29700
29	---	24300	---	7800	---	8900	18800	4800	---	22900	---	---
30	---	---	24500	10000	---	8800	20900	16300	---	17000	---	---
31	---	---	19600	9800	---	8400	---	16300	---	23300	---	---
MONTH	---	---	22600	20500	16300	9300	16600	19300	---	---	---	---

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1960	2790	2090	12590	951	2410	31	357	1380	---
2	---	---	2020	3300	1990	11270	1080	3380	38	1190	716	---
3	---	---	2040	4130	1960	11920	971	2530	383	1920	312	---
4	---	---	1850	1910	2080	10300	815	2840	123	430	29	---
5	---	---	1590	1370	1310	14610	796	1730	28	60	---	---
6	---	---	1190	2350	1560	14880	928	1300	---	---	---	---
7	---	---	1300	1940	3010	15650	842	972	---	---	2620	---
8	---	---	1070	2000	2780	9250	827	770	1310	---	4900	---
9	---	---	1080	2430	2790	9180	775	849	4810	---	2550	---
10	---	---	1810	2580	3490	9340	696	741	6840	---	2370	---
11	---	---	1450	2890	2570	7470	693	615	3740	---	2120	---
12	719	---	1200	2500	5280	6540	619	582	2100	---	1760	---
13	298	209	828	2440	9860	5290	526	522	1440	---	1660	---
14	87	117	750	2830	10450	5050	766	435	1730	---	451	---
15	---	108	883	2380	2900	3730	565	312	6670	---	396	---
16	---	445	1490	2290	3520	3410	593	236	2240	---	1290	---
17	---	463	966	2200	1890	3060	615	24	1050	---	1330	---
18	---	352	1440	2170	3310	2530	570	---	402	---	3340	---
19	---	1210	2750	2040	3270	3140	981	---	---	---	2420	---
20	---	2320	2150	---	3550	2650	2270	---	743	---	2220	---
21	---	2020	1590	4240	1880	2110	2610	---	4200	---	901	---
22	---	1730	1610	4290	1820	1890	3410	236	2820	---	222	---
23	---	1540	1590	9110	2350	1610	5090	8.7	1240	10750	39	---
24	---	1350	1620	2600	4990	1500	7140	---	270	7220	374	---
25	---	1110	1440	2260	12290	1500	4000	---	---	2760	195	---
26	---	917	1480	2930	22720	1380	3430	65	---	828	27	1440
27	---	1250	1180	1980	17920	1560	2640	279	---	377	---	---
28	---	1270	1150	2160	9230	1540	2360	291	---	913	---	40
29	---	1840	---	2050	---	1270	2180	124	---	9820	---	---
30	---	---	2120	2070	---	1100	2370	326	---	4650	---	---
31	---	---	1590	1730	---	1000	---	88	---	3080	---	---
MONTH	---	---	1510	2730	5100	5750	1740	851	---	---	---	---

07158000 CIMARRON RIVER NEAR WAYNOKA, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	35820	45680	20170	17350	14860	34830	23010	17420	38940	---
2	---	---	38040	32440	19840	16480	17080	38120	13590	11980	34170	---
3	---	---	37210	31620	20240	19170	16280	36560	17350	39840	35240	---
4	---	---	33680	26280	21380	19100	15340	39840	17350	39840	36140	---
5	---	---	32940	24220	17280	27760	15870	38360	21920	36970	---	---
6	---	---	30640	48720	21720	27680	18900	40420	---	---	---	---
7	---	---	33510	48310	46830	27920	18360	40260	---	---	35400	---
8	---	---	31580	49880	43130	16610	21590	39840	31210	---	31950	---
9	---	---	31870	50450	40260	16810	22060	40580	36880	---	25870	---
10	---	---	36180	48560	47160	17750	23890	38360	28830	---	21250	---
11	---	---	34580	48560	33270	15940	23810	38200	29320	---	24720	---
12	37210	---	35400	47160	46920	15870	25540	41080	31790	---	18230	---
13	27510	22190	36720	46010	32360	13590	25040	40010	29650	---	22930	---
14	27020	21050	35820	48970	35240	14190	33920	36470	44700	---	18960	---
15	---	10630	36560	47820	12780	11980	29160	38690	39100	---	20710	---
16	---	23000	44040	45850	17690	11770	30640	41900	28910	---	10500	---
17	---	32610	40010	45520	11100	11170	29320	37710	31130	---	13990	---
18	---	32610	44780	46500	17620	11100	23480	---	37210	---	34010	---
19	---	41900	47570	45270	16140	14800	30390	---	---	---	35820	---
20	---	46500	44450	---	17820	13990	42800	---	22120	---	37210	---
21	---	40420	37870	49710	17080	12920	42640	---	34750	---	37300	---
22	---	36970	34340	25780	19170	12920	51770	18430	35650	---	34420	---
23	---	36880	39520	29240	24220	12180	51930	13990	38530	51850	23980	---
24	---	38120	40260	10030	31540	12240	26440	---	41900	25370	19640	---
25	---	38120	42640	9760	38530	13250	24470	---	---	32280	20380	---
26	---	35570	43870	13250	50290	13120	30390	36880	---	28500	16950	44780
27	---	40830	40750	10160	38780	16070	29730	5250	---	29160	---	---
28	---	35730	39760	11840	14190	16880	32530	12580	---	6130	---	49960
29	---	40750	---	13520	---	15340	31460	8820	---	38360	---	---
30	---	---	41160	17080	---	15270	34990	27260	---	28500	---	---
31	---	---	32770	16880	---	14600	---	27180	---	39020	---	---
MONTH	---	---	37810	34500	27600	15990	27820	32470	---	---	---	---

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	3290	4690	3540	21550	1650	4040	51	611	2310	---
2	---	---	3390	5520	3370	19350	1840	5660	66	2100	1200	---
3	---	---	3420	6920	3330	20290	1670	4240	656	3230	523	---
4	---	---	3090	3190	3520	17530	1410	4090	211	721	49	---
5	---	---	2670	2290	2240	24430	1370	2900	47	100	---	---
6	---	---	1990	3950	2640	24880	1580	2180	---	---	---	---
7	---	---	2170	3260	5060	26160	1440	1630	---	---	4400	---
8	---	---	1790	3370	4660	15880	1400	1290	2190	---	8200	---
9	---	---	1810	4090	4670	15750	1310	1420	8070	---	4260	---
10	---	---	3030	4330	5860	15960	1160	1240	11440	---	4020	---
11	---	---	2430	4850	4310	12870	1160	1030	6250	---	3540	---
12	1210	---	2010	4200	8870	11270	1030	976	3520	---	3000	---
13	498	353	1390	4100	16510	9210	879	875	2400	---	2790	---
14	146	199	1260	4760	17510	8780	1280	729	2900	---	768	---
15	---	192	1480	4000	5070	6560	945	522	11190	---	671	---
16	---	745	2500	3840	6020	6010	993	396	3750	---	2300	---
17	---	775	1620	3690	3360	5430	1030	41	1770	---	2300	---
18	---	590	2420	3640	5660	4500	951	---	673	---	5600	---
19	---	2040	4620	3420	5620	5430	1640	---	---	---	4060	---
20	---	3890	3600	---	6060	4610	3810	---	1250	---	3720	---
21	---	3380	2660	7110	3230	3700	4370	---	7040	---	1510	---
22	---	2890	2690	7170	3100	3310	5730	403	4720	---	372	---
23	---	2590	2670	15240	3920	2830	8550	15	2080	18060	65	---
24	---	2260	2720	4660	8350	2640	11920	---	453	12060	636	---
25	---	1850	2420	4060	20600	2610	6670	---	---	4620	330	---
26	---	1540	2490	5120	38150	2410	5740	110	---	1380	46	2420
27	---	2090	1980	3540	30050	2690	4420	525	---	630	---	---
28	---	2120	1930	3800	16020	2640	3950	509	---	1700	---	67
29	---	3080	---	3580	---	2190	3650	226	---	16470	---	---
30	---	---	3560	3550	---	1900	3970	545	---	7770	---	---
31	---	---	2650	2960	---	1730	---	147	---	5160	---	---
MONTH	---	---	2520	4630	8620	9840	2920	1430	---	---	---	---

07161000 CIMARRON RIVER AT PERKINS, OKLA.

LOCATION.--Lat 35°57'32", long 97°01'49", in SW1/4SW1/4 sec.7, T.17 N., R.3 E., Payne County, at gaging station at bridge on U.S. Highway 177, 1.0 mi (1.6 km) south of Perkins, 1.5 mi (2.4 km) upstream from Dugout Creek, 4.0 mi (6.4 km) downstream from Wildhorse Creek, and at mile 87.3 (140.5 km).

DRAINAGE AREA.--17,852 sq mi (46,236.7 km²), of which 4,926 sq mi (12,758.3 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1952 to September 1963, June 1965 to current year.
Water temperatures: October 1952 to September 1963, June 1965 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)
OCT.									
01-03	195	530	146	4	120	810	.2	--	1.9
04-07	167	790	168	6	160	1200	.3	--	1.4
08...	2520	370	126	0	100	540	.2	--	6.4
09-10	1600	160	80	0	50	240	.2	--	5.2
11...	604	80	86	0	45	110	.3	--	7.8
12...	351	180	106	0	65	260	.2	--	5.4
13-15	221	520	148	0	120	800	.2	--	4.3
16-28	139	1000	206	0	220	1500	.3	--	2.7
29-31	86	1300	226	8	270	2000	.4	--	6.5
NOV.									
01-07	69	1200	240	8	240	1900	.4	--	3.7
08-20	61	1300	252	8	270	2100	.3	--	.90
21-30	54	1300	256	8	290	2100	.5	--	2.8
DEC.									
01-10	57	1400	250	14	300	2200	.6	--	2.9
11-18	79	1400	256	12	320	2200	.7	--	4.0
19-31	113	1800	256	8	380	2800	.8	--	5.2
JAN.									
01-04	259	1800	242	12	400	2700	.8	--	7.5
05-09	469	640	406	0	12	950	.6	--	.20
10-15	254	940	182	8	250	1400	.3	--	3.9
16-23	200	1800	230	14	370	2800	.4	--	2.9
24-31	174	2200	228	16	390	3400	.5	--	3.1
FEB.									
01-10	154	3000	240	12	420	4600	.8	.29	1.3
11-19	168	2700	176	32	360	4200	.8	.77	3.4
20-24	292	3200	232	0	360	4900	.8	1.0	4.5
25-27	559	1200	200	0	210	1800	.6	1.6	7.0
28...	1410	580	168	0	140	850	.5	2.5	11
MAR.									
01-03	740	1200	156	0	170	1900	.3	1.4	6.0
04-05	490	2100	182	0	290	3200	.4	.43	1.9
06-15	412	5000	216	12	480	7900	.6	--	--
16-25	258	4100	250	0	490	6400	.5	--	--
26-31	172	3500	252	0	450	5400	.6	--	--
APR.									
01-10	124	3100	254	8	400	4800	.8	.50	2.2
11-19	96	3100	248	16	460	4900	.8	.38	1.7
20...	431	840	124	4	130	1300	.5	.02	.10
21...	691	380	66	26	82	560	.5	.05	.20
22-23	345	1100	178	6	160	1700	.4	.77	3.4
24...	568	600	142	4	110	900	.5	1.4	6.3
25-30	253	1300	200	6	240	2000	.4	.72	3.2
MAY									
01...	174	2500	218	16	380	3800	.6	1.2	5.4
02-04	149	4300	212	22	500	6700	.6	--	--
05-16	109	3400	248	12	420	5400	.4	--	--
17-27	58	2900	268	14	400	4600	.7	.43	1.9
28-31	72	2000	252	12	300	3100	.5	.34	1.5
JUNE									
01-02	103	1600	250	0	270	2400	.8	.66	2.9
03-04	1480	250	108	4	56	380	.6	1.3	5.7
05-12	988	340	142	2	110	490	.6	1.4	6.1
13...	5520	230	106	8	60	360	.6	1.4	6.4
14-15	3000	440	134	4	120	650	.5	1.2	5.4
16-23	331	1000	166	4	250	1500	.6	.61	2.7
24-30	169	1600	220	6	280	2400	.6	.79	3.5
JULY									
01-03	471	520	112	6	100	800	.5	.77	3.4
04...	504	350	126	2	98	520	.5	1.8	7.8
05-07	241	870	166	0	200	1300	.6	.79	3.5
08-23	106	1800	198	6	420	2800	.7	.66	2.9
24-29	165	840	180	2	200	1300	.6	.79	3.5
30-31	152	1700	174	8	330	2600	.6	.84	3.7
AUG.									
01-03	138	1400	182	4	300	2200	.7	.81	3.6
04-11	84	2000	226	6	350	3100	.8	.47	2.1
12-15	96	1200	164	8	210	1900	.4	.61	2.7
16-19	132	1800	208	4	320	2800	.5	.99	4.4
20-31	70	2200	218	12	320	3500	.5	.56	2.5

07161000 CIMARRON RIVER AT PERKINS, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 14,100 mg/1 Mar. 6-15; minimum, 339 mg/1 Oct. 11.
Hardness: Maximum, 890 mg/1 May 2-4; minimum, 110 mg/1 Oct. 9-11, Sept. 18-19, 25-26.
Specific conductance: Maximum daily, 28,700 micromhos Mar. 7; minimum daily, 661 micromhos Oct. 11.
Water temperatures: Maximum, 33.0°C July 9; minimum, 0.5°C Jan. 5-7, Feb. 7-9.

Period of record.--Dissolved solids: Maximum, 20,500 mg/1 Feb. 18, 20, 1955; minimum, 277 mg/1 May 17, 1957.
Hardness: Maximum, 1,880 mg/1 Aug. 27-29, 1954; minimum, 76 mg/1 Sept. 18-19, 1963.
Specific conductance: Maximum daily, 32,400 micromhos Mar. 18, 1957; minimum daily, 353 micromhos Apr. 30, 1970.
Water temperatures: Maximum, 38.0°c July 15, 17, 19, 24-27, 1970; minimum, -1.0°C Jan. 19-20, 1970.

REMARKS.--Continuous monitor records for water temperatures and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.									
01-03	.90	1710	2.33	900	280	154	14	3000	8.5
04-07	1.0	2480	3.37	1120	350	202	18	4360	8.5
08...	1.6	1250	1.70	8500	210	107	11	2200	8.3
09-10	.78	541	.74	2340	110	44	6.6	1010	7.7
11...	1.4	339	.46	553	110	39	3.3	627	8.2
12...	1.2	700	.95	663	150	63	6.4	1160	8.3
13-15	1.1	1640	2.23	978	260	139	14	2950	8.3
16-28	1.7	3080	4.19	1160	430	261	21	5410	8.3
29-31	2.9	3770	5.13	875	520	321	25	6590	8.5
NOV.									
01-07	2.3	3440	4.68	641	510	300	23	6160	8.5
08-20	1.1	4250	5.78	670	580	360	24	7360	8.5
21-30	3.4	4050	5.51	590	580	357	24	7110	8.5
DEC.									
01-10	.51	4100	5.58	631	590	362	25	7290	8.6
11-18	3.6	4290	5.83	915	580	350	25	7420	8.6
19-31	1.8	5500	7.48	1080	660	437	31	9350	8.5
JAN.									
01-04	3.7	5340	7.26	3730	640	421	31	8910	8.6
05-09	1.9	1870	2.54	2370	310	0	16	3520	7.5
10-15	1.2	2940	4.00	2020	420	257	20	5090	8.5
16-23	1.7	5720	7.78	3090	630	418	31	9350	8.6
24-31	2.1	6590	8.96	3100	670	483	40	10800	8.6
FEB.									
01-10	1.2	8280	11.3	3440	680	460	50	13700	8.6
11-19	1.3	7590	10.3	3440	670	470	45	12500	8.8
20-24	2.6	8790	12.0	6930	650	460	55	13900	8.3
25-27	3.4	3720	5.06	5620	390	230	26	5890	8.3
28...	3.0	1700	2.31	6470	260	120	16	2970	8.3
MAR.									
01-03	1.4	3640	4.95	7350	350	220	28	6090	8.3
04-05	.60	6230	8.47	8240	410	260	45	9970	8.2
06-15	.72	14100	19.2	15700	810	610	76	22400	8.5
16-25	.36	11600	15.8	8080	830	630	62	18400	8.3
26-31	2.6	9840	13.4	4570	780	570	55	15800	8.3
APR.									
01-10	1.4	8960	12.2	3010	810	590	47	14600	8.5
11-19	1.8	9220	12.5	2390	840	610	46	14900	8.6
20...	.04	2600	3.54	3020	290	180	21	4490	8.5
21...	.92	1180	1.60	2200	160	62	13	2120	9.4
22-23	1.5	3270	4.45	3050	380	220	25	5610	8.6
24...	1.4	1880	2.56	2880	240	120	17	3260	8.5
25-30	1.8	3840	5.22	2620	430	260	27	6560	8.5
MAY									
01...	1.9	7040	9.57	3310	680	470	42	11800	8.7
02-04	1.2	12300	16.7	4950	890	680	63	19700	8.7
05-16	.92	9760	13.3	2870	810	590	52	15800	8.5
17-27	.68	8420	11.5	1230	830	590	44	14100	8.6
28-31	1.1	5800	7.89	1130	640	410	34	9870	8.6
JUNE									
01-02	2.1	4810	6.54	1340	530	330	30	8000	8.3
03-04	.59	860	1.17	3440	140	45	9.2	1510	8.5
05-12	1.1	1120	1.52	2940	200	80	10	2000	8.4
13...	1.3	816	1.11	12200	160	60	7.9	1470	8.7
14-15	.61	1420	1.93	11500	210	93	13	2480	8.5
16-23	1.1	3080	4.19	2750	380	240	22	5340	8.4
24-30	1.9	4660	6.34	2130	520	330	31	7910	8.4
JULY									
01-03	.50	1660	2.28	2140	210	110	16	2900	8.7
04...	1.9	1110	1.51	1510	190	83	11	1980	8.4
05-07	1.3	2650	3.60	1720	340	200	21	4620	8.3
08-23	1.0	5490	7.47	1570	660	490	30	9110	8.5
24-29	1.3	2740	3.73	1220	360	210	19	4710	8.4
30-31	1.8	5050	6.87	2070	540	380	32	8500	8.6
AUG.									
01-03	2.0	4330	5.89	1610	470	310	28	7040	8.5
04-11	2.0	6140	8.35	1390	630	440	35	9870	8.5
12-15	1.1	3730	5.07	967	410	260	26	6310	8.6
16-19	1.7	5580	7.59	1990	550	370	33	8980	8.4
20-31	2.2	6910	9.40	1310	600	400	39	11100	8.6

07161000 CIMARRON RIVER AT PERKINS, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
SEP.									
01-03	16	2400	256	16	34	3900	.7	1.3	5.7
04...	19	110	156	2	39	140	.4	7.2	32
05-07	137	310	130	0	81	450	.7	.86	3.8
08-09	38	690	186	0	120	1100	.6	.77	3.4
10-17	28	1100	218	6	170	1700	.5	.81	3.6
18-19	489	180	92	0	48	270	.2	1.0	4.6
20-24	625	540	106	0	140	840	.4	1.2	5.3
25-26	4070	150	92	0	50	220	.1	.93	4.1
27...	5790	260	118	0	82	380	.3	1.9	8.2
28-30	1030	160	100	0	93	230	.3	1.4	6.1
WTD. AVG.	--	1180	166	5	196	1820	.5	--	4.8
TIME WTD. AVG.	294	1840	213	8	296	2860	.6	--	3.4
TOT. LOAD (TONS)	--	341000	47900	1340	56800	527000	136	--	1260

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	OXYGEN CONSUMED (UNFILTERED) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
OCT.			
28...	118	11.0	3.2
NOV.			
24...	52	9.7	4.0
DEC.			
22...	130	5.4	1.7
JAN.			
19...	238	12.0	1.2
FEB.			
27...	934	24.0	9.0
APR.			
06...	117	7.5	2.3
MAY			
18...	21	11.0	3.1
JUNE			
18...	321	8.3	1.4
JULY			
29...	151	16.0	5.6
AUG.			
23...	56	13.0	2.8
SEP.			
09...	31	1.4	4.0

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALDRIN (UG/L)	CHLORDANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIAZINON (UG/L)	DIELDRIN (UG/L)
OCT.							
28...	.00	.0	.00	.00	.00	.00	.00

DATE	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	MALATHION (UG/L)	METHYL PARATHION (UG/L)	PARATHION (UG/L)
OCT.							
28...	.00	.00	.00	.01	.00	.00	.00

07161000 CIMARRON RIVER AT PERKINS, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
SEP.									
01-03	2.0	7310	9.94	316	730	490	39	11800	8.6
04...	.81	460	.63	23.6	160	29	3.8	807	8.4
05-07	.83	1040	1.41	385	160	53	11	1790	8.0
08-09	1.4	2300	3.13	236	320	170	17	3900	8.1
10-17	1.5	3350	4.56	253	420	230	23	5750	8.5
18-19	.81	660	.90	871	110	35	7.5	1130	8.2
20-24	1.1	1790	2.43	3020	220	130	16	3060	8.0
25-26	.40	558	.76	6130	110	35	6.2	967	8.2
27...	1.4	930	1.26	14500	150	53	9.2	1570	8.3
28-30	.45	650	.88	1810	140	58	5.9	1100	8.2
MTD. AVG.	1.2	3510	4.78	--	362	220	23	5820	8.4
TIME MTD. AVG.	1.5	5430	7.40	--	551	364	32	9000	8.5
TOT. LOAD (TONS)	361	1017000	--	--	--	--	--	--	--

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT.				
28...	5700	8.0	10.6	94
NOV.				
24...	5000	.0	13.2	95
DEC.				
22...	8100	5.0	12.4	103
JAN.				
19...	7500	.5	13.7	98
FEB.				
27...	4750	12.0	9.9	96
MAR.				
15...	21000	15.0	11.4	120
APR.				
06...	10900	7.0	11.1	96
MAY				
18...	14800	19.5	8.2	90
JUNE				
18...	3400	26.0	6.6	87
JULY				
29...	6400	29.0	10.2	138
AUG.				
23...	11200	32.0	8.0	111
SEP.				
09...	4700	25.0	8.1	103

07161000 CIMARRON RIVER AT PERKINS, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2460	6160	7280	9850	18800	5570	15700	11700	9580	4010	6760	12700
2	3060	5660	7280	9540	14800	6270	15400	17000	6400	2100	7050	11900
3	3600	5530	7060	8720	12800	7560	15200	20900	1750	4470	8450	12000
4	4200	5860	7280	9400	12300	9420	15600	21400	760	2520	9690	8070
5	4360	6330	7420	3600	12100	13100	15500	17900	2620	4530	10600	1470
6	4180	6600	7450	4330	12000	23000	16000	17300	2410	5000	9310	1750
7	4980	7010	7400	3630	12400	28700	15500	16100	2410	4200	9770	2130
8	1320	6910	7100	3190	12600	22300	15700	16000	1570	10100	9030	3470
9	967	7060	7170	3380	12600	21300	16300	14200	1450	9630	9760	5490
10	991	7540	7160	4400	12800	20900	16200	17100	2000	7390	10030	6440
11	663	7580	7300	4540	11500	21000	16300	13400	1660	7880	9560	5180
12	1340	7530	6380	4590	11300	21100	15700	14700	2510	7890	6250	4690
13	2570	7160	7170	4890	12300	22800	15800	16400	2120	8290	8830	5490
14	3260	6800	7230	6500	13300	23100	15900	16400	2430	8520	5850	6700
15	3230	6950	7590	6930	12600	21500	15700	15800	3110	11200	5720	7000
16	4660	7320	7380	8670	13400	20500	15600	14700	5190	9300	8230	7560
17	4990	7370	7170	8890	14300	19000	14400	14000	4680	9760	9860	4950
18	5390	7320	7800	8870	13800	18900	12000	12600	3980	9580	8290	1240
19	5740	7400	8340	9090	13300	18900	13800	14300	4520	9700	10000	1680
20	5840	6880	9050	9580	16500	18900	4430	14600	5390	10000	12520	2950
21	4970	6600	8220	10170	15400	18600	2900	14400	6150	10360	11800	3660
22	6300	6550	8660	10300	16400	18000	4820	14200	5190	10900	14200	2730
23	6350	6810	9120	10200	11900	17800	8200	13900	5900	9990	11400	3070
24	5840	7060	9420	10300	9140	18100	3260	11300	6790	3050	10000	2880
25	5120	7160	9630	10400	5680	17700	8400	14000	6970	4860	10300	770
26	3960	7270	10000	10300	6850	16800	8340	13600	7130	5110	10500	1400
27	4740	7450	9610	10100	4850	16000	5690	12140	7670	2310	10500	1480
28	5580	7400	9720	10000	3670	15700	5260	8750	8520	5370	10400	1130
29	6130	7370	9630	10100	---	15400	6710	11700	9100	6390	10600	990
30	6850	7260	9720	11200	---	15900	5340	9090	9560	9300	12300	1240
31	6790	---	9620	15500	---	16100	---	10030	---	7900	11700	---
MONTH	4210	6930	8110	8100	12120	17740	11860	14500	4650	7150	9660	4410

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	---	---	6.0	3.0	5.5	14.0	---	25.5	27.0	27.0	28.0
2	23.0	---	---	6.5	2.5	3.5	13.5	---	27.0	29.0	27.5	28.5
3	21.5	7.5	13.5	7.0	3.5	2.5	14.0	---	23.5	30.5	28.0	30.0
4	21.0	7.5	11.0	1.0	5.0	5.5	12.0	---	25.5	30.5	28.5	30.5
5	20.5	9.0	10.0	0.5	3.0	9.0	11.5	---	27.0	30.5	28.0	27.5
6	22.5	11.5	---	0.5	2.5	9.0	11.0	---	27.5	32.0	25.5	29.0
7	24.0	13.0	---	0.5	0.5	8.0	13.5	21.0	27.5	32.5	26.0	30.5
8	---	14.0	---	1.0	0.5	8.5	15.0	21.5	23.5	32.5	28.0	29.0
9	---	11.5	13.5	1.0	0.5	10.0	17.0	20.0	25.0	33.0	28.5	28.0
10	14.5	11.5	15.5	1.0	1.5	10.5	17.5	21.5	27.5	32.0	29.5	27.0
11	14.0	10.5	---	3.5	5.5	13.5	19.5	22.5	27.5	31.0	28.5	25.0
12	15.5	9.5	---	2.5	5.5	15.0	20.5	19.0	28.5	31.0	28.0	23.5
13	17.0	8.5	---	3.0	4.5	16.5	17.0	20.5	26.0	31.0	27.5	26.0
14	16.5	6.5	---	4.0	6.5	16.5	17.0	22.5	27.5	30.5	26.5	27.0
15	---	5.5	8.0	2.0	7.5	13.0	19.0	23.0	29.5	30.0	26.5	23.0
16	---	7.0	8.5	3.5	10.5	14.5	20.5	24.0	30.0	29.0	29.5	20.5
17	---	9.0	---	5.0	11.0	13.5	20.0	23.0	30.5	30.0	31.5	16.5
18	---	10.5	9.0	4.5	14.0	10.0	19.5	22.0	31.0	30.0	31.0	14.5
19	17.0	11.5	---	1.5	11.5	7.5	21.0	22.0	30.5	27.0	30.0	14.5
20	18.0	10.0	---	2.5	9.5	9.0	19.0	23.0	28.5	28.0	29.0	15.5
21	17.5	11.5	---	6.0	4.0	12.5	19.5	23.0	28.5	28.5	29.0	17.5
22	20.0	---	9.5	7.5	1.0	12.0	19.5	22.0	30.0	27.5	29.5	19.0
23	19.0	---	---	6.0	3.5	10.5	18.0	24.0	30.5	26.0	30.5	18.5
24	17.5	---	---	8.0	6.0	8.0	---	22.0	30.5	29.0	30.5	17.5
25	18.5	---	---	8.5	11.0	10.0	---	23.0	29.5	32.0	30.5	19.0
26	21.5	---	---	7.5	12.0	12.5	---	25.0	29.0	27.0	31.0	21.0
27	---	---	---	5.5	9.5	16.0	---	23.5	29.5	27.5	31.0	23.5
28	---	---	---	7.0	7.0	18.0	---	22.0	29.0	28.5	28.5	24.5
29	---	---	6.5	9.0	---	14.5	---	20.5	29.0	27.0	27.5	26.5
30	---	---	7.0	9.0	---	15.5	---	21.5	29.0	25.0	27.0	26.0
31	---	---	6.0	4.5	---	15.5	---	25.5	---	26.0	27.0	---
MONTH	---	---	---	4.5	6.0	11.0	---	22.5	28.0	29.5	28.5	23.5

07161000 CIMARRON RIVER AT PERKINS, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	230	270	340	490	220	450	390	330	170	250	400
2	140	220	270	330	430	240	440	460	240	93	260	390
3	160	210	260	310	410	270	440	520	77	180	300	390
4	170	220	270	330	400	330	440	530	34	110	340	290
5	180	240	270	160	400	410	440	480	120	180	360	65
6	170	250	270	180	390	550	450	470	110	200	330	77
7	200	260	270	160	400	---	440	450	110	170	340	96
8	58	250	260	140	400	540	450	450	69	350	320	150
9	43	260	260	150	400	530	450	430	64	340	340	210
10	44	270	260	180	410	520	450	470	88	270	350	240
11	29	270	270	180	390	520	450	410	73	280	330	200
12	59	270	240	190	380	520	450	430	110	280	240	190
13	110	260	260	190	400	550	450	460	94	300	310	210
14	140	250	260	240	410	550	450	460	110	300	220	250
15	140	260	280	260	400	530	450	450	140	380	220	260
16	190	270	270	310	410	510	440	430	200	330	290	270
17	200	270	260	310	430	490	430	420	190	340	340	200
18	210	270	280	310	420	490	390	400	170	330	300	55
19	220	270	300	320	410	490	420	430	180	340	350	74
20	220	250	320	330	460	490	180	430	210	350	400	130
21	200	250	290	350	440	490	130	430	230	360	390	160
22	240	240	310	360	460	480	190	430	200	370	430	120
23	240	250	320	350	390	480	290	420	220	350	390	140
24	220	260	330	360	320	480	140	380	250	140	350	130
25	200	260	340	360	220	470	300	420	260	190	360	34
26	170	270	350	360	250	460	300	420	260	200	360	62
27	190	270	340	350	190	450	220	400	280	100	360	65
28	220	270	340	350	160	450	210	310	300	210	360	50
29	230	270	340	350	---	440	250	390	320	240	360	44
30	250	270	340	380	---	450	210	320	330	330	400	55
31	250	---	340	440	---	450	---	350	---	280	390	---
MONTH	170	260	290	290	380	460	360	430	180	260	330	170

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	48	37	93	246	560	169	163	92	270	111	21
2	70	43	40	97	207	456	157	197	67	106	96	17
3	72	40	38	195	187	414	154	209	229	194	92	14
4	72	40	42	525	187	427	151	200	168	151	93	15
5	81	42	41	336	181	552	145	175	483	132	92	34
6	76	44	41	296	175	749	160	169	385	115	76	34
7	98	46	40	188	162	---	158	147	176	114	75	13
8	396	43	40	95	119	654	131	140	102	194	69	18
9	237	42	44	95	108	578	123	160	75	158	74	18
10	135	44	47	114	153	541	117	176	162	107	67	27
11	48	44	49	137	184	548	120	134	109	94	76	17
12	56	45	45	135	160	564	113	114	175	81	67	11
13	81	40	51	137	160	586	118	100	1390	77	79	10
14	83	42	55	165	178	553	108	97	1270	71	63	11
15	70	41	62	161	195	480	107	88	596	83	47	10
16	83	42	60	185	196	477	102	78	368	67	89	16
17	83	42	59	178	169	444	99	68	203	65	139	33
18	84	45	71	179	179	400	120	68	131	60	118	46
19	85	47	89	180	221	351	123	69	117	55	111	134
20	82	44	106	179	294	343	210	59	116	53	124	355
21	69	42	105	181	349	321	239	55	138	52	147	426
22	80	41	105	173	404	307	130	56	185	94	127	151
23	84	38	104	167	298	267	347	58	166	192	92	112
24	85	36	101	166	275	253	221	50	182	58	71	119
25	87	37	100	164	187	250	377	51	156	47	61	210
26	56	36	99	161	289	243	272	48	124	103	55	976
27	66	36	97	150	487	217	125	63	111	65	47	1020
28	66	36	98	147	602	212	71	63	105	99	51	241
29	59	38	97	163	---	195	115	79	105	96	33	93
30	58	37	96	207	---	199	112	58	104	116	31	75
31	53	---	96	230	---	186	---	67	---	132	24	---
MONTH	91	41	69	180	235	411	157	106	277	108	80	143

07161000 CIMARRON RIVER AT PERKINS, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	590	1800	2200	3100	6500	1600	5300	3700	3000	1100	2000	4100
2	750	1600	2200	3000	4900	1800	5200	5800	1900	510	2100	3800
3	940	1600	2100	2700	4100	2300	5100	7300	420	1200	2400	3800
4	1100	1700	2200	2900	4000	2900	5200	7500	180	610	3100	2500
5	1200	1900	2200	940	3900	4300	5200	6100	630	1300	3300	360
6	1100	2000	2200	1200	3800	8100	5400	5900	580	1400	2900	420
7	1400	2100	2200	950	4000	---	5200	5400	580	1100	3000	510
8	320	2100	2100	800	4100	7800	5300	5400	380	3100	2800	890
9	230	2100	2200	860	4100	7400	5500	4700	350	3000	3000	1600
10	240	2300	2100	1200	4100	7300	5500	5800	400	2200	3100	1900
11	160	2300	2200	1300	3600	7300	5500	4400	400	2400	3000	1500
12	320	2300	1900	1300	3600	7400	5300	4900	610	2400	1600	1300
13	620	2100	2200	1400	4000	8000	5300	5500	510	2500	2700	1600
14	820	2000	2200	1900	4300	8100	5400	5500	590	2600	1700	2000
15	810	2100	2300	2100	4100	7500	5300	5300	770	3500	1700	2100
16	1300	2200	2200	2700	4400	7100	5200	4900	1500	2900	2500	2300
17	1400	2200	2200	2700	4700	6600	4800	4600	1300	3000	3100	1400
18	1500	2200	2400	2700	4500	6500	3800	4100	1100	3000	2500	300
19	1700	2200	2500	2800	4300	6500	4500	4700	1300	3000	3100	410
20	1700	2100	2800	3000	5600	6500	1200	4800	1500	3100	4000	720
21	1400	2000	2500	3200	5200	6400	700	4800	1800	3200	3800	960
22	1900	1900	2700	3200	5500	6200	1400	4700	1500	3400	4700	660
23	1900	2000	2800	3200	3800	6100	2500	4600	1700	3100	3600	760
24	1700	2100	2900	3200	2800	6200	820	3600	2000	750	3100	700
25	1500	2100	3000	3200	1600	6100	2600	4600	2100	1400	3200	190
26	1100	2200	3100	3200	2000	5700	2500	4500	2100	1500	3300	340
27	1300	2200	3000	3100	1400	5400	1600	3900	2300	560	3300	360
28	1600	2200	3000	3100	960	5300	1500	2700	2600	1500	3200	270
29	1800	2200	3000	3100	---	5200	2000	3700	2800	1900	3300	240
30	2000	2200	3000	3500	---	5400	1500	2800	3000	2900	4000	300
31	2000	---	3000	5200	---	5400	---	3100	---	2400	3700	---
MONTH	1200	2100	2500	2500	3900	5900	3900	4800	1300	2100	3000	1300

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354	371	307	836	3250	4190	2240	1750	817	1730	890	211
2	391	327	331	861	2350	3580	1840	2450	530	579	786	164
3	435	301	314	1690	1920	3450	1780	2930	1250	1320	788	135
4	471	308	342	4650	1860	3780	1780	2840	921	828	830	126
5	546	332	336	2020	1780	5760	1700	2250	5380	900	841	188
6	500	349	339	1980	1710	11050	1920	2130	2180	820	668	167
7	699	373	331	1140	1620	---	1850	1770	961	749	671	69
8	2170	351	327	539	1210	9500	1550	1670	557	1750	601	108
9	1300	342	360	548	1100	8200	1490	1770	413	1410	662	136
10	736	369	382	767	1570	7600	1420	2200	888	889	598	216
11	261	365	403	933	1730	7720	1460	1420	598	796	656	123
12	307	374	356	925	1490	7960	1340	1290	958	685	521	78
13	446	330	418	973	1590	8610	1410	1210	7630	656	689	77
14	477	339	451	1310	1680	8180	1290	1180	6950	613	482	66
15	401	336	514	1310	1980	6850	1270	1050	3350	762	358	85
16	575	345	498	1600	2080	6630	1200	888	2760	590	759	136
17	590	347	488	1560	2090	5910	1110	747	1410	581	1240	234
18	622	374	593	1560	1940	5310	1170	692	832	537	1010	250
19	647	391	763	1580	2330	4660	1340	766	797	487	999	732
20	624	360	933	1590	3590	4560	1420	667	860	479	1250	1960
21	492	333	893	1630	4080	4220	1310	618	1080	468	1410	2540
22	631	325	911	1560	4910	3960	916	621	1350	858	1410	824
23	662	307	911	1510	2890	3420	2960	630	1270	1730	866	624
24	646	297	884	1500	2420	3270	1260	462	1470	304	630	649
25	628	301	895	1490	1410	3190	3240	561	1270	332	555	1150
26	358	295	890	1460	2340	3000	2330	518	1020	740	496	5340
27	458	297	860	1350	3430	2600	943	820	927	357	425	5560
28	491	301	871	1320	3660	2510	519	540	908	727	465	1320
29	461	311	862	1470	---	2280	920	756	924	758	304	539
30	468	306	855	1910	---	2370	825	507	927	1020	310	408
31	426	---	856	2690	---	2240	---	607	---	1110	231	---
MONTH	589	335	596	1490	2290	5220	1530	1240	1700	825	723	809

07161000 CIMARRON RIVER AT PERKINS, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	3580	4250	5890	11610	3230	9630	7080	5720	2310	3930	7710
2	1750	3290	4250	5700	9050	3640	9440	10460	3720	1190	4110	7200
3	2070	3210	4110	5170	7780	4430	9310	12950	981	2580	5000	7270
4	2420	3400	4250	5610	7460	5620	9570	13300	397	1430	5920	4760
5	2520	3680	4340	2070	7330	7970	9500	11030	1490	2620	6370	816
6	2420	3840	4360	2500	7270	14290	9820	10650	1370	2900	5550	981
7	2880	4080	4330	2090	7520	---	9500	9880	1370	2420	5840	1200
8	727	4020	4140	1830	7650	13840	9630	9820	875	6050	5370	1990
9	519	4110	4180	1940	7650	13200	10010	8670	804	5750	5840	3190
10	533	4420	4180	2540	7780	12950	9950	10520	1130	4320	6010	3740
11	340	4450	4270	2630	6950	13010	10010	8160	928	4640	5710	3000
12	739	4410	3710	2650	6820	13080	9630	8990	1430	4640	3630	2710
13	1460	4180	4180	2830	7460	14160	9690	10080	1200	4900	5240	3190
14	1870	3960	4220	3700	8100	14350	9760	10040	1380	5050	3400	3900
15	1850	4050	4450	4030	7650	13330	9630	9690	1780	6760	3320	4080
16	2700	4280	4320	5140	8160	12690	9570	8990	3020	5540	4660	4430
17	2890	4310	4180	5280	8740	11740	8800	8540	2710	5840	5900	2870
18	3130	4280	4590	5270	8420	11670	7270	7650	2300	5720	4900	680
19	3330	4330	4930	5410	8100	11670	8420	8740	2610	5800	5990	939
20	3390	4000	5380	5720	10140	11670	2560	8930	3130	5990	7600	1690
21	2880	3840	4850	6100	9440	11480	1660	8800	3570	6180	7140	2110
22	3660	3810	5130	6100	10080	11100	2790	8670	3010	6560	8670	1560
23	3690	3960	5430	6120	7200	10970	4840	8480	3430	5980	6880	1760
24	3390	4110	5640	6180	5840	11160	1870	6820	3950	1750	5990	1650
25	2970	4180	5750	6250	3300	10910	4970	8560	4060	2810	6180	403
26	2280	4250	5990	6180	3990	10330	4930	8290	4160	2960	6310	774
27	2740	4360	5740	6050	2810	9820	3300	7360	4500	1310	6310	822
28	3240	4330	5810	5990	2110	9630	3050	5190	5050	3110	6250	615
29	3560	4310	5750	6050	---	9440	3900	7080	5420	3720	6370	533
30	3990	4240	5810	6760	---	9760	3100	5410	5710	5540	7460	680
31	3950	---	5880	9500	---	9880	---	6010	---	4650	7080	---
MONTH	2430	4040	4790	4820	7360	10700	7200	8870	2710	4230	5780	2570

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	835	735	597	1610	5830	8440	4080	3320	1580	3710	1740	396
2	909	656	643	1660	4330	7070	3360	4430	1040	1360	1530	311
3	962	606	611	3270	3590	6700	3270	5210	2910	2760	1530	255
4	1000	616	666	8960	3500	7300	3250	5030	1990	1950	1600	244
5	1150	656	657	4470	3360	10760	3100	4050	12700	1880	1620	432
6	1060	684	660	4170	3240	19480	3500	3850	4960	1680	1290	434
7	1430	727	643	2500	3050	---	3390	3230	2260	1590	1290	163
8	4950	684	637	1230	2270	16700	2830	3050	1280	3370	1160	232
9	2890	666	700	1230	2070	14550	2700	3280	968	2720	1280	275
10	1640	716	744	1610	2940	13500	2580	3980	2070	1730	1150	425
11	555	708	783	1950	3300	13700	2650	2640	1390	1540	1260	251
12	700	727	701	1930	2850	14120	2440	2380	2260	1330	1030	161
13	1050	643	813	2000	3000	15180	2560	2200	17870	1270	1330	155
14	1090	662	878	2570	3500	14420	2340	2150	16380	1190	963	168
15	916	655	998	2550	3720	12130	2310	1910	7750	1460	717	165
16	1190	670	968	3100	3880	11790	2200	1630	5560	1140	1470	263
17	1210	675	949	3010	3870	10580	2040	1380	2920	1120	2390	480
18	1260	728	1150	3020	3590	9520	2220	1300	1790	1080	1960	567
19	1300	760	1480	3050	4350	8350	2480	1420	1670	939	1920	1700
20	1250	703	1600	3070	6520	8160	2980	1230	1740	922	2360	4600
21	1010	653	1730	3150	7470	7560	3090	1140	2130	901	2680	5690
22	1250	638	1760	3000	8920	7130	1890	1150	2750	1650	2600	1950
23	1310	599	1760	2910	5480	6160	5740	1170	2540	3330	1650	1850
24	1290	578	1720	2890	4670	5880	2870	884	2870	708	1230	1540
25	1280	586	1720	2870	2830	5740	6270	1040	2480	684	1070	2490
26	771	573	1710	2800	4560	5440	4510	962	1980	1520	954	12230
27	948	577	1660	2600	7080	4750	1890	1550	1800	839	818	12840
28	988	585	1680	2540	8040	4580	1050	1050	1760	1870	894	2970
29	914	605	1660	2830	---	4180	1800	1430	1780	1890	585	1140
30	915	595	1650	3670	---	4320	1670	979	1790	1980	584	927
31	832	---	1650	4930	---	4080	---	1170	---	2160	439	---
MONTH	1250	656	1150	2940	4350	9410	2900	2260	3760	1660	1390	1830

07164200 KEYSTONE LAKE NEAR SAND SPRINGS, OKLA.

LOCATION.--Lat 36°09'05", long 96°15'05", in SW1/4SE1/4 sec.4, T.19 N., R.10 E., Tulsa County, at gaging station at Keystone Dam on Arkansas River, 8.5 mi (13.7 km) west of Sand Springs, and at mile 538.8 (866.9 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESER-VOIR STORAGE (AC-FT)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
15...	715300	210	148	0	92	320	.50	756
NOV.								
02...	706600	190	148	0	87	280	1.5	714
17...	675000	190	158	0	89	280	.40	724
DEC.								
15...	567800	190	156	0	88	280	.60	730
JAN.								
04...	574800	200	162	0	93	310	2.2	770
17...	582900	210	162	0	89	310	2.0	849
FEB.								
02...	577600	230	168	0	100	340	.80	932
17...	568300	240	174	0	120	350	.20	968
MAR.								
02...	628400	260	180	0	110	390	.50	994
17...	631000	250	196	0	67	410	.20	1110
APR.								
01...	586800	320	184	0	120	480	1.6	1230
19...	554500	340	180	0	120	500	.30	1230
MAY								
17...	569700	340	176	0	140	510	.80	1210
JUNE								
01...	595200	370	178	0	140	540	.70	1260
JULY								
01...	617400	190	140	0	88	290	.60	738
20...	602400	--	--	--	--	--	--	--
AUG.								
02...	583600	--	--	--	--	--	--	--
16...	572800	250	146	0	98	380	1.2	904
SEP.								
03...	489500	--	--	--	--	--	--	--
15...	571200	230	140	0	83	330	.80	796

07164200 KEYSTONE LAKE NEAR SAND SPRINGS, OKLA.

DRAINAGE AREA.--74,506 sq mi (192,970.5 km²), of which 12,541 sq mi (32,481.2 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: February 1965 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TUR-BID-ITY (MG/L)
OCT.							
15...	1.03	210	89	6.3	1430	7.7	--
NOV.							
02...	.97	210	89	5.7	1320	7.9	--
17...	.98	210	80	5.7	1330	7.8	--
DEC.							
15...	.99	210	82	5.7	1330	7.8	--
JAN.							
04...	1.05	230	97	5.7	1410	8.0	--
17...	1.15	230	97	6.0	1470	7.8	--
FEB.							
02...	1.27	240	102	6.5	1570	7.7	--
17...	1.32	250	107	6.6	1670	7.6	--
MAR.							
02...	1.35	260	112	7.0	1750	7.6	--
17...	1.51	290	129	6.4	1850	7.8	--
APR.							
01...	1.67	280	130	8.3	2060	7.6	--
19...	1.67	270	120	9.0	2140	7.6	--
MAY							
17...	1.65	290	150	8.7	2160	7.7	6
JUNE							
01...	1.71	290	140	9.5	2250	7.8	6
JULY							
01...	1.00	200	85	5.8	1350	7.7	5
20...	--	--	--	--	1540	--	--
AUG.							
02...	--	--	--	--	1650	--	--
16...	1.23	210	90	7.5	1630	7.9	4
SEP.							
03...	--	--	--	--	1610	--	--
15...	1.08	190	75	7.3	1460	7.7	6

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.

LOCATION.--Lat 36°06'48", long 96°06'49", in SW1/4NW1/4 sec.14, T.19 N., R.11 E., Tulsa County, at bridge on State Highway 97 in Sand Springs, 5.1 mi (8.2 km) downstream from Keystone Dam, and 10.0 mi (16.1 km) upstream from gaging station at Tulsa.

DRAINAGE AREA.--74,615 sq mi (193,252.8 km²) upstream from gaging station, of which 12,541 sq mi (32,481.2 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1946 to current year.
Water temperatures: October 1946 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.								
01-15	2620	210	68	10	100	300	.20	.02
16-31	2260	200	150	2	95	280	2.4	.16
NOV.								
01-15	1840	200	154	0	90	290	2.7	.31
16-30	3340	200	154	0	95	280	2.5	.30
DEC.								
01-15	2210	190	156	0	90	280	2.7	.34
16-31	1050	200	160	0	90	290	2.5	.35
JAN.								
01-15	1730	220	166	0	92	340	2.4	.39
16-31	1210	260	174	0	99	400	2.4	.45
FEB.								
01-15	1350	250	176	4	100	380	3.0	.40
16-28	1880	280	176	4	100	440	2.5	.40
MAR.								
01-10	4110	280	26	10	110	440	.40	--
11-16	4280	280	168	16	120	450	1.4	--
17-18	5920	500	186	10	130	810	4.2	--
19-23	4140	330	188	8	120	520	4.1	--
24-31	3260	500	186	8	140	800	3.6	--
APR.								
01-10	3000	400	176	8	120	630	3.1	.60
11-20	1270	430	112	0	130	670	.60	.10
21-30	1830	440	176	8	130	690	2.0	.20
MAY								
01-10	2390	440	140	24	140	670	1.8	.14
11-20	3010	390	188	0	140	590	3.4	.40
21-31	1970	400	168	10	140	600	1.7	.36
JUNE								
01-10	5040	370	186	0	140	560	1.8	.44
11-20	9160	340	180	0	130	520	2.7	.39
21-30	5940	310	108	28	120	460	.90	.05
JULY								
01-10	3690	280	128	16	110	440	.30	.28
11-20	3770	280	158	0	100	440	2.8	.60
21-31	2980	280	152	0	100	430	2.6	.64
AUG.								
01-10	1960	300	142	8	100	450	.50	.25
11-20	3010	290	154	0	98	430	2.2	.50
21-31	3880	260	148	0	95	410	2.5	.47
SEP.								
01-04	2630	290	156	0	94	430	2.0	.47
05...	3170	110	88	0	37	170	3.0	.44
06...	6970	23	68	0	10	32	3.6	.30
07...	3870	110	108	0	44	160	1.8	.27
08-17	3640	240	146	0	84	350	2.4	.44
18...	6100	43	60	0	18	60	1.8	.30
19-23	6110	220	128	0	72	320	2.9	.36
24-30	4600	160	118	0	59	240	2.1	.27
WTD. AVG.	--	288	148	5	107	439	2.2	.35
TIME WTD. AVG.	2980	284	150	5	106	431	2.2	.34
TOT. LOAD (TONS)	--	845000	433000	15000	314000	1287000	6350	896

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,720 mg/1 Mar. 17-18; minimum, 152 mg/1 Sept. 6.
Hardness: Maximum, 340 mg/1 Mar. 17-18, 24-31; minimum 62 mg/1 Sept. 6.
Specific conductance: Maximum daily, 3,550 micromhos Mar. 26; minimum daily, 647 micromhos Sept. 6.
Water temperatures: Maximum, 28.0°C July 11, 17; minimum, 1.5 °C Feb. 8.

Period of record.--Dissolved solids: Maximum, 13,500 mg/1 Oct. 19, 1956; minimum,152 mg/1 Sept. 6, 1971.
Hardness: Maximum, 2,600 mg/1 Oct. 19, 1956; minimum, 62 mg/1 Sept. 6, 1971.
Specific conductance: Maximum daily, 21,200 micromhos Oct. 19, 1956; minimum daily, 269 micromhos Nov. 21, 1964.
Water temperatures: Maximum, 36.0°C Aug. 7, 1947; minimum, freezing point on many days during winter period.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-15	757	1.03	5360	150	78	7.5	1320	9.0
16-31	752	1.02	4590	210	84	6.0	1340	8.4
NOV.								
01-15	737	1.00	3660	210	84	6.0	1330	8.3
16-30	742	1.01	6690	210	84	6.0	1320	8.2
DEC.								
01-15	760	1.03	4530	210	82	5.7	1340	8.2
16-31	790	1.07	2240	220	89	5.9	1370	8.1
JAN.								
01-15	854	1.16	3990	230	94	6.3	1520	8.0
16-31	1000	1.36	3270	250	107	7.2	1720	8.3
FEB.								
01-15	986	1.34	3590	250	99	6.9	1670	8.4
16-28	1060	1.44	5380	260	110	7.6	1840	8.4
MAR.								
01-10	976	1.33	10800	160	120	9.6	1750	9.4
11-16	1090	1.48	12600	300	140	7.0	1930	8.8
17-18	1740	2.37	27800	340	170	12	3060	8.6
19-23	1240	1.69	13900	310	140	8.2	2220	8.6
24-31	1720	2.34	15100	340	170	12	3030	8.6
APR.								
01-10	1420	1.93	11500	290	130	10	2470	8.5
11-20	1490	2.03	5110	230	140	12	2530	7.6
21-30	1530	2.08	7560	300	140	11	2650	8.6
MAY								
01-10	1520	2.07	9810	300	150	11	2640	8.9
11-20	1390	1.89	11300	300	150	9.8	2340	8.2
21-31	1370	1.86	7290	300	150	10	2440	8.5
JUNE								
01-10	1360	1.85	18500	290	140	9.5	2280	8.3
11-20	1250	1.70	30900	280	130	8.8	2050	8.3
21-30	1050	1.43	16800	240	110	8.7	1820	9.1
JULY								
01-10	1050	1.43	10500	240	110	7.9	1870	8.9
11-20	1020	1.39	10400	240	110	7.9	1830	7.9
21-31	1000	1.36	8050	220	95	8.2	1810	7.9
AUG.								
01-10	1040	1.41	5500	220	90	8.8	1880	8.6
11-20	1010	1.37	8210	220	94	8.5	1830	8.2
21-31	968	1.32	10100	210	89	7.8	1740	8.2
SEP.								
01-04	1040	1.41	7390	220	92	8.5	1780	8.1
05...	429	.58	3670	100	28	4.8	739	7.4
06...	152	.21	2860	62	6	1.3	246	7.7
07...	447	.61	4670	130	41	4.2	802	8.0
08-17	858	1.17	8430	200	80	7.4	1520	7.9
18...	201	.27	3310	64	15	2.3	331	7.8
19-23	796	1.08	13100	180	75	7.1	1380	7.7
24-30	611	.83	7590	150	53	5.7	1110	7.6
WTD. AVG.	1050	1.42	--	237	108	8.1	1820	8.4
TIME WTD. AVG.	1030	1.40	--	236	106	7.9	1810	8.4
TOT. LOAD (TONS)	3067000	--	--	--	--	--	--	--

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT. 14...	5890	4.3	.8
NOV. 17...	4860	3.6	.4
DEC. 23...	930	4.4	1.0
JAN. 20...	1220	4.9	1.0
FEB. 18...	618	4.4	1.1
MAR. 17...	5680	2.5	1.6
APR. 06...	1060	4.3	1.2
MAY 18...	984	4.2	2.1
JUNE 18...	8300	20.0	.9
JULY 29...	750	4.6	.4
AUG. 24...	3190	9.0	--
SEP. 09...	1340	4.7	.2

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	1330	1360	1380	1620	1900	2370	2540	2350	1590	1830	1750
2	1580	1300	1310	1460	1710	1730	2580	2800	2320	1780	1890	1790
3	1520	1280	1300	1280	1860	1760	2550	2710	2290	1860	1870	1810
4	1490	1370	1300	1430	1590	1980	2870	2870	2240	1900	1850	1870
5	1440	1310	1270	1330	1630	1930	2430	2650	2360	1960	1840	1150
6	1380	1400	1340	1520	1670	1920	2320	2610	2360	1940	1860	647
7	1330	1310	1310	1440	1680	1760	2150	2760	2330	1910	1840	1130
8	1810	1300	1250	1500	2000	1940	2540	2690	2270	1890	1850	1630
9	1680	1330	1480	1500	1690	1980	2370	2400	2300	1850	1970	1620
10	1420	1340	1360	1510	1660	1940	2310	2810	2280	1840	1910	1580
11	1350	1300	1330	1540	1720	1920	2480	2730	2280	1850	1800	1560
12	1350	1310	1310	1550	1830	1880	2580	2580	2180	1810	1830	1560
13	1370	1360	1330	1590	1660	1860	2720	2570	2110	1790	1820	1520
14	1440	1350	1340	1680	1740	1790	2620	2500	2090	1790	1820	1460
15	1420	1290	1350	1670	1780	2000	2510	2420	2050	1670	1840	1460
16	1220	1270	1350	1690	1840	2360	2630	2570	2070	1700	1800	1480
17	1010	1360	1380	1780	2060	3100	2580	2420	2110	1780	1760	1410
18	1400	1300	1370	1750	1990	2860	2650	2310	2250	1820	1780	957
19	1400	1320	1340	1700	1940	1920	2580	2460	2060	1870	1780	1360
20	1390	1320	1350	1720	1870	2040	2600	2460	2050	1810	1790	1440
21	1340	1320	1360	1810	1910	2240	2690	2470	1950	1770	1790	1410
22	1320	1330	1390	1700	1480	2390	2760	2560	1860	1860	1930	1310
23	1260	1230	1350	1720	1720	2330	2940	2690	1830	1790	1660	1370
24	1260	1350	1360	1840	1720	2730	2830	2970	1900	1800	1770	1200
25	1530	1310	1410	1730	1630	2980	2810	2370	1890	1800	1690	1060
26	1410	1310	1400	1670	1750	3550	2700	2420	1890	1720	1700	1080
27	1300	1300	1400	1510	1750	3020	2700	2360	1870	1770	1690	1110
28	1190	1300	1440	1700	1830	2990	2540	2360	1830	1810	1710	1110
29	1290	1300	1420	1700	---	3210	2510	2310	1830	1860	1760	1090
30	1310	1310	1290	1540	---	2820	2940	2370	1750	1780	1780	1090
31	1310	---	1580	1680	---	3160	---	2360	---	1780	1760	---
MONTH	1390	1320	1360	1600	1760	2320	2600	2550	2100	1810	1810	1370

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT. 14...	1490	17.5	8.2	89
NOV. 17...	--	12.5	8.6	87
DEC. 23...	1300	5.0	12.6	103
JAN. 20...	1750	3.0	11.2	87
FEB. 18...	--	10.5	10.5	100
MAR. 17...	3020	9.0	10.0	91
APR. 06...	2450	10.0	10.8	99
20...	2700	13.0	10.1	104
MAY 18...	2200	21.0	8.8	102
JUNE 18...	2220	25.5	6.5	87
JULY 29...	1450	25.5	6.3	80
AUG. 24...	1600	30.0	6.9	93
SEP. 09...	1490	26.0	6.6	85

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	13.5	12.0	8.0	4.0	6.0	11.0	18.5	21.5	26.0	---	26.5
2	24.5	14.0	11.5	9.0	3.0	4.5	---	16.5	22.0	26.5	---	26.5
3	22.0	13.0	12.5	7.5	4.0	4.5	---	17.0	21.0	26.5	---	26.5
4	21.5	12.5	10.0	---	4.0	5.5	---	18.5	22.5	26.0	---	27.0
5	20.5	14.0	10.5	---	4.0	6.5	---	18.5	23.0	26.0	---	25.0
6	22.5	14.0	9.0	4.5	3.0	6.5	10.5	---	23.5	26.5	---	25.5
7	22.0	15.0	9.5	4.5	2.0	6.0	12.0	19.0	22.0	27.0	---	27.5
8	18.5	15.5	9.5	4.5	1.5	6.5	12.5	19.5	21.5	27.5	---	27.0
9	15.5	13.0	10.0	5.5	2.5	6.5	14.0	18.0	23.0	27.0	---	27.5
10	18.5	14.0	11.5	6.5	3.5	7.0	16.5	18.0	23.0	27.0	---	27.0
11	18.0	12.5	7.5	6.0	4.5	7.5	15.5	18.5	23.5	28.0	---	27.5
12	19.5	12.5	9.5	5.0	4.5	7.5	13.5	18.0	23.5	27.5	---	26.5
13	19.0	12.5	8.5	5.0	4.0	8.5	13.5	18.0	24.0	27.0	---	26.5
14	18.5	11.0	8.5	6.0	6.0	9.5	15.0	19.0	24.0	27.5	---	26.5
15	18.0	10.0	8.5	---	6.5	8.5	15.0	20.5	24.5	27.5	---	24.5
16	17.5	11.0	8.0	---	6.5	9.0	15.0	20.5	25.0	26.5	---	22.0
17	17.5	12.0	8.5	6.0	6.0	7.5	15.5	20.5	25.0	28.0	---	22.0
18	18.5	12.5	10.5	4.5	9.0	7.5	16.0	19.5	25.0	27.5	---	20.0
19	18.5	12.0	8.0	3.5	7.5	9.0	15.0	19.0	25.0	26.5	---	22.5
20	17.5	12.0	7.0	4.5	6.5	10.0	15.5	20.0	25.0	25.5	---	23.0
21	18.0	12.5	9.0	6.0	3.5	9.0	15.5	20.0	25.0	27.0	---	22.0
22	18.5	11.0	10.5	7.0	2.5	9.0	16.0	19.5	26.0	26.0	---	22.0
23	17.5	7.5	7.5	5.5	4.5	8.0	17.0	20.5	25.5	---	---	21.0
24	18.0	12.0	9.5	7.0	5.5	9.0	17.5	19.5	26.0	---	---	20.5
25	19.0	10.0	6.0	5.5	8.5	9.0	17.5	22.0	26.0	---	---	22.0
26	18.0	12.0	5.5	5.0	8.5	11.0	16.5	21.5	26.0	---	---	23.5
27	16.0	10.5	6.5	4.0	7.5	10.5	15.5	20.5	26.0	---	---	---
28	15.5	10.0	7.0	6.0	6.0	10.5	14.5	19.5	26.0	---	---	---
29	16.5	13.0	8.5	6.0	---	11.0	16.5	20.0	25.5	---	---	21.5
30	16.5	12.0	7.0	6.0	---	11.5	18.5	20.0	25.0	---	---	21.5
31	15.5	---	7.5	4.0	---	11.5	---	22.5	---	---	---	---
MONTH	19.0	12.0	9.0	5.5	5.0	8.0	15.5	19.5	24.0	---	---	24.5

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	69	71	72	89	110	130	130	130	87	110	99
2	86	68	68	77	96	97	130	140	130	100	110	100
3	82	67	68	67	110	100	130	130	130	110	110	100
4	80	71	68	75	87	120	140	140	130	110	110	110
5	76	68	66	69	90	110	130	130	130	110	110	60
6	72	73	70	82	93	110	130	130	130	110	110	34
7	69	68	68	76	94	100	130	130	130	110	110	59
8	100	68	65	80	120	110	130	130	130	110	110	90
9	94	69	79	80	94	120	130	130	130	110	120	89
10	74	70	71	81	92	110	130	140	130	110	110	86
11	70	68	69	83	97	110	130	130	130	110	100	85
12	70	68	68	84	110	110	130	130	130	100	110	85
13	71	71	69	87	92	110	130	130	130	100	100	82
14	76	70	70	94	98	100	130	130	120	100	100	77
15	74	67	70	93	100	120	130	130	120	93	110	77
16	64	66	70	94	110	130	130	130	120	95	100	79
17	53	71	72	100	120	140	130	130	130	100	100	74
18	73	68	71	99	120	140	130	130	130	100	100	50
19	73	69	70	95	110	110	130	130	120	110	100	71
20	72	69	70	97	110	120	130	130	120	100	100	76
21	70	69	71	100	110	130	130	130	110	100	100	74
22	69	69	72	95	79	130	130	130	110	110	110	68
23	66	64	70	97	97	130	140	130	110	100	92	71
24	66	70	71	110	97	130	140	140	110	100	100	63
25	83	68	74	97	90	140	140	130	110	100	94	55
26	74	68	73	93	99	140	130	130	110	97	95	56
27	68	68	73	81	99	140	130	130	110	100	94	58
28	62	68	76	95	110	140	130	130	110	100	96	58
29	67	68	74	95	---	140	130	130	110	110	100	57
30	68	68	67	83	---	140	140	130	99	100	100	57
31	68	---	86	94	---	140	---	130	---	100	100	---
MONTH	74	69	71	88	100	120	130	130	120	100	100	73

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	389	452	231	221	365	1140	768	921	1300	193	923
2	220	434	365	164	215	291	1330	314	1230	1010	766	764
3	193	476	392	186	306	1460	750	1030	1030	704	610	686
4	163	357	359	284	320	1650	228	1340	921	546	582	526
5	146	339	309	476	537	2150	984	1170	1390	488	643	513
6	140	479	179	736	341	1250	1320	1140	1450	978	736	635
7	132	387	485	570	203	836	1370	1070	2010	1360	396	616
8	293	187	718	523	617	1750	1620	518	2530	1380	216	1790
9	789	303	680	362	553	1250	1220	326	3790	1690	497	1480
10	933	381	521	182	687	1190	773	978	2750	974	1070	1080
11	760	264	440	247	553	1170	288	2370	2460	387	877	641
12	836	310	273	368	317	1140	476	2000	2830	978	1030	256
13	893	404	221	378	160	1190	627	1630	2290	1740	1190	641
14	1210	289	396	427	123	1160	625	961	3210	1770	691	941
15	1120	147	430	509	128	1840	367	506	4180	1550	191	564
16	824	308	355	428	646	1330	553	451	4260	1390	443	300
17	489	929	229	151	552	2150	411	531	4400	1010	583	575
18	676	706	208	384	311	2180	273	630	2960	472	826	822
19	546	723	168	295	515	1800	448	809	2460	390	1150	1570
20	380	558	170	318	272	1940	516	974	1920	491	1340	1560
21	411	284	131	304	266	1020	532	978	1840	747	1090	1310
22	413	129	172	220	513	1370	328	862	1560	1010	608	867
23	463	187	171	172	1330	745	320	500	2300	709	1650	658
24	553	1040	216	195	1020	1070	313	475	2170	565	1810	946
25	513	1480	219	539	406	1360	305	728	2150	399	1310	584
26	273	871	137	562	304	1460	297	603	1460	415	1180	144
27	436	476	141	241	243	1090	906	598	991	1160	1180	352
28	157	251	267	250	258	651	742	1280	1610	641	505	1000
29	143	540	302	414	---	1160	1180	884	1630	1440	227	1000
30	143	808	187	236	---	1370	1720	427	1450	1470	494	1000
31	188	---	228	273	---	1410	---	451	---	529	1190	---
MONTH	475	481	307	343	425	1320	732	881	2210	958	816	825

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360	300	310	310	370	460	600	650	590	360	440	410
2	360	290	300	330	400	400	660	730	580	420	450	420
3	350	290	290	290	440	410	650	700	580	440	450	430
4	340	310	290	330	360	480	750	750	560	460	440	450
5	330	300	290	300	370	470	620	690	600	480	440	260
6	310	320	300	350	390	460	580	670	600	470	440	140
7	300	300	300	330	390	410	530	720	590	460	440	250
8	430	290	280	340	490	470	650	700	570	450	440	370
9	390	300	340	340	390	480	600	610	580	440	480	370
10	320	300	310	340	380	470	580	730	570	440	460	360
11	310	290	300	350	400	460	630	710	570	440	430	360
12	310	300	300	350	440	450	660	660	540	430	440	360
13	310	310	300	360	380	440	710	660	520	420	430	350
14	330	310	300	390	410	420	680	640	510	531	541	330
15	320	290	310	390	420	490	640	620	500	390	440	330
16	270	290	310	390	440	600	791	771	621	400	430	340
17	220	310	310	420	510	820	660	620	520	420	410	320
18	320	290	310	410	480	750	711	691	671	430	420	210
19	320	300	300	400	470	460	660	630	510	450	420	310
20	320	300	310	400	450	500	670	630	500	430	420	330
21	300	300	310	430	460	560	700	630	470	420	420	320
22	300	300	320	400	340	610	720	660	440	440	470	300
34	391	280	310	400	400	590	770	700	440	420	380	310
24	280	310	310	440	400	710	740	780	460	430	420	270
25	350	300	320	410	370	790	730	600	450	430	390	240
26	320	300	320	390	410	960	700	620	450	400	400	240
27	290	290	320	340	410	800	811	711	561	420	390	250
28	270	290	330	400	440	790	650	600	440	430	400	250
29	290	290	320	400	---	860	640	580	440	440	410	240
30	300	300	290	350	---	740	770	600	410	420	420	240
31	300	---	360	390	---	840	---	600	---	420	410	---
MONTH	320	300	310	370	420	590	670	660	520	430	430	310

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	1690	1960	1010	919	1520	5130	3750	4120	5420	800	3840
2	922	1880	1580	703	892	1210	6590	1710	5440	4200	3180	3170
3	817	2060	1700	803	1270	6050	3680	5410	4460	2930	2540	2850
4	695	1550	1550	1230	1340	6850	1270	7490	3900	2270	2420	2190
5	631	1470	1340	2060	2230	8950	4570	5970	6230	2020	2670	2200
6	610	2090	777	3120	1420	5190	5840	5740	6520	4060	3060	2560
7	571	1680	2100	2460	844	3470	5680	5700	8900	5660	1640	2640
8	1220	809	3100	2230	2560	7270	7900	2690	10860	5720	897	7430
9	3280	1320	2900	1540	2300	5180	5520	1490	16550	7040	2060	6150
10	4040	1650	2260	773	2860	4920	3390	5330	11890	4040	4450	4520
11	3300	1140	1910	1040	2300	4860	1370	12500	10630	1610	3640	2700
12	3630	1340	1180	1550	1320	4740	2360	9940	11740	4060	4300	1080
13	3880	1760	959	1580	665	4950	3300	8040	9510	7230	4960	2720
14	5210	1260	1720	1780	513	4840	3160	4610	13340	7340	2870	4040
15	4870	635	1870	2120	533	7620	1770	2340	17350	6440	794	2420
16	3560	1330	1540	1780	2680	5960	2800	2230	17700	5780	1840	1280
17	2080	4040	997	626	2290	13030	2040	2460	18260	4190	2420	2500
18	2940	3060	906	1600	1290	12090	1400	2760	12600	1960	3430	3470
19	2380	3140	731	1230	2140	7470	2220	3810	10200	1620	4760	6830
20	1650	2420	739	1320	1130	8060	2590	4590	7960	2040	5570	6750
21	1790	1230	570	1260	1100	4310	2770	4630	7650	3110	4520	5700
22	1790	562	750	918	2190	6260	1750	4240	6500	4190	2530	3760
23	2000	807	744	715	5520	3300	1830	2600	9550	2950	6870	2860
24	2390	4510	940	810	4230	5650	1720	2750	9030	2350	7530	4080
25	2170	6430	951	2240	1690	7910	1660	3290	8910	1660	5430	2490
26	1180	3770	597	2340	1260	10150	1550	2790	6070	1720	4920	616
27	1890	2060	613	1020	1010	6440	4730	2690	4120	4830	4920	1510
28	676	1090	1150	1040	1070	3790	3620	5730	6680	2660	2100	4290
29	620	2340	1310	1720	---	7280	5690	3880	6780	5980	945	4280
30	620	3500	810	997	---	7480	9810	1930	6020	6100	2050	4290
31	816	---	953	1140	---	8710	---	2030	---	2200	4930	---
MONTH	2050	2090	1330	1440	1770	6310	3590	4360	9320	3980	3390	3510

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE, NEAR TULSA, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	893	751	768	780	915	1070	1350	1450	1340	898	1030	989
2	893	735	740	825	966	975	1480	1610	1320	1010	1070	1010
3	859	723	735	723	1050	994	1460	1550	1300	1050	1060	1020
4	842	774	735	808	898	1120	1650	1650	1270	1070	1050	1060
5	814	740	718	751	921	1090	1390	1520	1340	1110	1040	650
6	780	791	757	859	944	1080	1320	1490	1340	1100	1050	366
7	751	740	740	814	949	994	1220	1580	1330	1080	1040	638
8	1020	735	706	848	1130	1100	1450	1540	1290	1070	1050	921
9	949	751	836	848	955	1120	1350	1370	1310	1050	1110	915
10	802	757	768	853	938	1100	1310	1610	1300	1040	1080	893
11	763	735	751	870	972	1080	1420	1570	1300	1050	1020	881
12	763	740	740	876	1030	1060	1480	1480	1240	1020	1030	881
13	774	768	751	898	938	1050	1560	1470	1200	1010	1030	859
14	814	763	757	949	983	1010	1500	1430	1180	1010	1030	825
15	802	729	763	944	1010	1130	1430	1380	1160	944	1040	825
16	689	718	763	955	1040	1340	1510	1470	1170	961	1020	836
17	571	768	780	1010	1170	1790	1480	1380	1200	1010	994	797
18	791	735	774	989	1120	1640	1520	1310	1280	1030	1010	561
19	791	746	757	961	1100	1080	1480	1400	1170	1060	1010	768
20	785	746	763	972	1060	1150	1490	1400	1160	1020	1010	814
21	757	746	768	1020	1080	1270	1540	1410	1100	1000	1010	797
22	746	751	785	961	836	1360	1580	1460	1050	1050	1090	740
23	712	695	763	972	972	1330	1690	1540	1030	1010	938	774
24	712	763	768	1040	972	1570	1630	1710	1070	1020	1000	678
25	864	740	797	977	921	1710	1610	1350	1070	1020	955	599
26	797	740	791	944	989	2050	1550	1380	1070	972	961	610
27	735	735	791	853	989	1740	1550	1340	1060	1000	955	627
28	672	735	814	961	1030	1720	1450	1340	1030	1020	966	627
29	729	735	802	961	---	1850	1430	1310	1030	1050	994	616
30	740	740	729	870	---	1620	1690	1350	989	1010	1010	616
31	740	---	893	949	---	1820	---	1340	---	1010	994	---
MONTH	786	744	768	904	995	1320	1490	1460	1190	1020	1020	772

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3060	4220	4900	2510	2270	3570	11560	8350	9290	13390	1900	9240
2	2280	4700	3960	1740	2160	2920	14670	3750	12300	10070	7500	7590
3	2020	5150	4240	2010	3010	14550	8190	11960	10100	6920	5990	6790
4	1720	3870	3890	3050	3300	15950	2780	16430	8870	5330	5730	5160
5	1570	3680	3350	5150	5500	20960	10260	13240	14050	4720	6340	5560
6	1520	5190	1940	7720	3460	12180	13200	12750	14710	9500	7240	6880
7	1430	4200	5260	6110	2060	8350	13010	12570	20100	13290	3900	6670
8	2900	2020	7780	5510	5950	17020	17610	5950	24650	13460	2130	18300
9	8000	3290	7200	3820	5590	12050	12440	3360	37460	16680	4810	15170
10	10050	4130	5640	1910	6990	11510	7670	11720	26970	9600	10460	11160
11	8240	2860	4770	2580	5560	11390	3070	27600	24090	3810	8700	6660
12	9060	3360	2960	3830	3130	11180	5260	22120	26830	9690	10220	2670
13	9680	4380	2390	3910	1630	11720	7280	17900	21850	17280	11800	6720
14	12940	3130	4290	4330	1240	11580	7010	10300	30710	17560	6830	10020
15	12110	1590	4650	5170	1280	17700	3950	5260	40080	15740	1880	6010
16	8930	3330	3850	4330	6370	13430	6220	4960	40810	14030	4390	3180
17	5300	10060	2480	1500	5290	28310	4540	5520	41970	10050	5830	6220
18	7330	7650	2260	3840	3000	26530	3090	6250	28630	4660	8230	8910
19	5920	7830	1820	2980	5000	17520	4940	8530	23540	3820	11400	17030
20	4110	6040	1840	3200	2660	18630	5750	10280	18380	4860	13330	16760
21	4460	3080	1420	3010	2590	9800	6120	10360	17880	7450	10810	14170
22	4470	1400	1870	2220	5440	14090	3860	9450	15380	9900	5920	9390
23	5020	2030	1860	1730	13360	7450	4000	5740	22700	7050	16810	7130
24	6000	11240	2340	1920	10230	12470	3770	6000	21250	5600	18060	10250
25	5370	16070	2370	5410	4150	17270	3660	7400	20990	3950	13230	6320
26	2950	9430	1490	5710	3040	21750	3420	6260	14300	4170	11960	1560
27	4720	5160	1520	2530	2430	14040	10450	6060	9730	11580	11960	3810
28	1700	2720	2860	2520	2550	8270	8080	12930	15880	6350	5090	10850
29	1550	5850	3250	4180	---	15750	12700	8770	16110	14160	2270	10840
30	1550	8750	2030	2470	---	16440	21460	4340	14500	14610	4910	10870
31	2040	---	2350	2770	---	18890	---	4580	---	5270	11840	---
MONTH	5100	5210	3320	3540	4260	14300	8000	9700	21470	9500	8110	8730

07171400 VERDIGRIS RIVER NEAR OOLOGAH, OKLA.

LOCATION.--Lat 36°25'17", long 95°41'01", in NW1/4 sec.2, T.22 N., R.15 E., Rogers County, at gaging station, 0.3 mi (0.5 km) downstream from Oologah Dam, 1.2 mi (1.9 km) upstream from Fourmile Creek, 2.0 mi (3.2 km) southeast of Oologah and at mile 90.0 (144.8 km).

DRAINAGE AREA.--4,339 sq mi (11,238.0 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
08...	17	108	0	48	32	3.7	.57	239
19...	45	94	0	39	58	23	12	296
NOV.								
04...	49	132	0	52	71	16	6.6	356
17...	38	122	0	49	44	28	11	312
DEC.								
15...	58	156	0	46	61	.50	19	351
29...	79	122	0	52	120	42	16	461
JAN.								
11...	52	122	0	41	81	.50	4.9	327
FEB.								
11...	62	144	0	58	100	15	4.9	432
24...	59	100	0	38	110	2.0	.52	375
MAR.								
09...	60	124	0	49	100	12	6.1	408
APR.								
08...	--	--	--	--	--	--	--	--
21...	64	180	0	61	86	.30	13	428
MAY								
07...	--	--	--	--	--	--	--	--
19...	50	120	0	48	71	26	8.0	363
JUNE								
02...	84	120	0	45	160	21	6.0	509
JULY								
02...	--	--	--	--	--	--	--	--
28...	18	114	0	42	30	4.9	1.2	241
AUG.								
10...	52	108	0	38	61	36	16	330
25...	--	--	--	--	--	--	--	--
SEP.								
21...	23	76	0	24	41	.60	.44	182

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT.							
08...	.33	150	61	.6	390	7.6	19.5
19...	.40	130	53	1.7	485	7.3	--
NOV.							
04...	.48	180	72	1.6	588	7.7	11.0
17...	.42	160	60	1.3	508	7.6	10.5
DEC.							
15...	.48	150	22	1.9	557	7.0	7.0
29...	.63	190	90	2.5	765	7.9	8.5
JAN.							
11...	.44	150	50	1.8	552	7.0	6.0
FEB.							
11...	.59	210	92	1.9	718	7.4	4.0
24...	.51	160	78	2.0	629	7.5	6.5
MAR.							
09...	.55	180	78	1.9	667	7.1	11.0
APR.							
08...	--	--	--	--	700	--	11.0
21...	.58	190	42	2.0	691	7.0	20.0
MAY							
07...	--	--	--	--	1010	--	21.0
19...	.49	160	62	1.7	584	7.6	17.0
JUNE							
02...	.69	200	100	2.6	847	7.7	24.5
JULY							
02...	--	--	--	--	333	--	25.0
28...	.33	140	46	.7	307	7.6	23.5
AUG.							
10...	.45	130	41	2.0	529	7.6	30.0
25...	--	--	--	--	484	--	29.5
SEP.							
21...	.25	94	32	1.0	307	7.0	21.0

07175500 CANEY RIVER NEAR RAMONA, OKLA.

LOCATION.--Lat 36°30'31", long 95°50'36", in NE1/4NW1/4 sec.5, T.23 N., R.14 E., Washington County, at gaging station at bridge on county road 1.0 mi (1.6 km) upstream from Buck Creek, 2.2 mi (3.5 km) downstream from Double Creek, 4.5 mi (7.2 km) southeast of Ramona, and at mile 32.0 (51.5 km).

DRAINAGE AREA.--1,955 sq mi (5,063.4 km²).

PERIOD OF RECORD.--Chemical analyses: November 1951 to August 1953, October 1959 to August 1962, October 1964 to current year.
Water temperatures: October 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.								
01-07	100	89	112	4	30	170	2.5	490
08...	1330	64	120	0	37	120	6.7	394
09...	4870	20	64	0	14	33	3.4	159
10-11	1280	50	20	14	18	98	.00	277
12-25	105	58	108	0	25	100	3.0	343
26...	115	130	122	0	29	240	.00	624
27-29	117	72	130	0	32	140	4.3	465
30-31	74	110	114	12	32	220	1.8	612
NOV.								
01-10	49	100	94	4	53	200	.30	566
11-20	31	86	154	10	42	170	2.7	540
21-30	28	84	184	4	43	180	3.7	581
DEC.								
01-15	30	110	168	26	46	220	2.1	702
16-31	59	100	198	8	50	230	8.7	690
JAN.								
01-03	368	100	146	4	43	240	2.1	682
04...	4020	58	96	0	27	120	2.4	394
05-06	1860	29	72	0	21	54	4.6	224
07-12	274	56	98	0	27	110	3.6	344
13-20	118	78	120	4	37	160	2.6	487
21-31	69	84	156	4	43	180	3.3	592
FEB.								
01-04	104	93	164	4	45	190	7.9	548
05-06	782	79	114	4	50	150	5.8	448
07-12	184	88	152	0	43	180	4.0	544
13-21	172	120	142	2	56	250	5.3	630
22-26	1150	71	110	0	49	140	2.6	417
27-28	1830	36	76	2	31	62	1.0	227
MAR.								
01-10	727	53	150	0	31	95	2.2	342
11-20	217	67	162	6	40	130	2.4	433
21-31	77	77	184	0	41	160	2.6	497
APR.								
01-10	36	83	176	10	43	180	1.2	528
11-20	26	99	194	4	55	210	2.0	632
21-30	65	110	148	4	61	240	1.1	628
MAY								
01-10	45	180	166	0	72	320	3.2	820
11-20	33	150	172	0	67	330	1.8	868
21-31	81	170	208	0	65	370	5.0	940
JUNE								
01-06	83	160	182	12	51	340	3.8	844
07-12	504	70	154	0	33	140	4.3	426
13...	934	140	0	20	41	280	.40	570
14...	795	38	118	0	22	76	.40	235
15-19	458	49	140	0	24	94	3.3	328
20-30	66	46	148	0	30	88	3.3	317
JULY								
01-05	290	64	150	0	30	130	3.8	426
06-09	1010	26	68	0	14	50	3.0	187
10-15	124	29	88	0	18	52	3.1	210
16-26	46	34	106	0	21	61	3.0	245
27-31	82	56	134	0	31	100	3.6	365
AUG.								
01-10	30	51	154	0	24	100	1.7	354
11-20	23	58	174	0	31	120	1.4	408
21-30	180	51	168	0	37	95	1.0	374
SEP.								
01-05	54	52	148	6	37	94	.10	358
06...	1160	24	70	0	15	40	4.4	168
07-08	378	44	92	0	22	82	3.9	269
09-18	113	68	132	6	26	140	2.9	419
19...	1160	64	50	20	30	120	2.7	332
20-24	187	43	68	0	20	83	1.7	248
25-26	1340	21	54	0	18	36	2.9	151
27...	1450	55	104	0	20	110	3.0	324
28-30	1110	30	84	4	20	51	1.2	209
WTD. AVG.	--	58	110	2	31	115	2.9	362
TIME WTD. AVG.	231	81	145	4	40	166	3.0	501
TOT. LOAD (TONS)	--	13200	25100	580	7040	26000	656	82300

07175500 CANEY RIVER NEAR RAMONA, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 940 mg/l May 21-31; minimum, 151 mg/l Sept. 25-26.
Hardness: Maximum, 390 mg/l May 21-31; minimum, 66 mg/l Sept. 25-26.
Specific conductance: Maximum daily, 1,770 micromhos May 26; minimum daily, 208 micromhos Sept. 25.
Water temperatures: Maximum, 35.0°C Aug. 26; minimum 2.0°C Feb. 8.

Period of record.--Dissolved solids: Maximum, 1,150 mg/l Feb. 4-7, 1967; minimum, 76 mg/l Oct. 7, 1967.
Hardness: Maximum, 390 mg/l May 21-31; minimum, 42 mg/l Oct. 7, 1967.
Specific conductance: Maximum daily, 1,879 micromhos Feb. 5, 1967; minimum daily, 125 micromhos June 27, 1969.
Water temperatures: Maximum, 35.0°C Aug. 6, 1970, Aug. 26, 1971; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-07	.67	132	180	81	2.9	809	8.5
08...	.54	1410	170	72	2.1	650	8.2
09...	.22	2090	72	19	1.0	237	7.8
10-11	.38	957	88	48	2.4	488	9.4
12-25	.47	97.2	140	51	2.0	564	7.9
26...	.85	194	190	90	4.1	1030	8.2
27-29	.63	147	190	83	2.3	752	8.2
30-31	.83	122	220	106	3.2	989	8.8
NOV.							
01-10	.77	74.9	200	116	3.1	930	8.5
11-20	.73	45.2	240	97	2.8	895	8.6
21-30	.79	43.9	260	102	2.3	937	8.4
DEC.							
01-15	.95	56.9	320	180	2.7	1110	8.9
16-31	.94	110	330	150	2.4	1150	8.5
JAN.							
01-03	.93	678	280	150	2.6	1060	9.1
04...	.54	4280	150	71	2.1	618	8.3
05-06	.30	1130	92	33	1.3	338	8.1
07-12	.47	254	140	60	2.1	560	8.0
13-20	.66	155	200	95	2.3	781	8.7
21-31	.81	110	250	120	2.3	910	8.4
FEB.							
01-04	.75	154	260	120	2.5	956	8.5
05-06	.61	986	200	100	2.4	794	8.4
07-12	.74	270	240	120	2.5	894	8.3
13-21	.86	293	270	150	3.2	1140	8.4
22-26	.57	1300	190	100	2.2	736	8.2
27-28	.31	1120	110	44	1.5	392	8.4
MAR.							
01-10	.47	671	180	57	1.7	609	8.2
11-20	.59	254	230	87	1.9	752	8.6
21-31	.68	103	250	98	2.1	853	8.1
APR.							
01-10	.72	51.3	270	110	2.2	922	8.6
11-20	.86	46.4	300	130	2.5	1060	8.4
21-30	.85	110	290	160	2.8	1110	8.5
MAY							
01-10	1.12	99.6	340	200	3.3	1370	8.3
11-20	1.18	77.3	340	200	3.5	1420	8.0
21-31	1.28	206	390	220	3.7	1520	8.3
JUNE							
01-06	1.15	189	360	190	3.7	1490	8.5
07-12	.58	580	200	74	2.2	752	8.3
13...	.78	1440	160	130	4.8	1010	9.7
14...	.32	504	140	43	1.4	423	8.3
15-19	.45	406	160	45	1.7	576	8.3
20-30	.43	56.5	170	49	1.5	571	8.2
JULY							
01-05	.50	334	190	67	2.0	706	8.3
06-09	.25	510	80	24	1.3	305	8.3
10-15	.29	70.3	98	26	1.3	349	8.0
16-26	.33	30.4	120	33	1.4	415	7.7
27-31	.50	80.8	160	50	1.9	614	8.0
AUG.							
01-10	.48	28.7	180	54	1.7	630	7.7
11-20	.55	25.3	220	77	1.7	724	7.8
21-30	.51	182	200	65	1.6	682	7.8
SEP.							
01-05	.49	52.2	180	49	1.7	617	8.6
06...	.23	526	76	19	1.2	285	8.1
07-08	.37	274	120	45	1.8	466	8.2
09-18	.57	129	190	72	2.2	715	8.6
19...	.45	1040	130	56	2.4	583	9.5
20-24	.33	123	96	40	1.9	422	8.2
25-26	.21	586	66	22	1.1	246	7.8
27...	.44	1270	140	55	2.0	563	8.3
28-30	.28	626	98	22	1.3	349	8.5
WTD. AVG.	.49	--	162	67	1.9	611	8.3
TIME WTD. AVG.	.68	--	225	99	2.3	841	8.3
TOT. LOAD (TONS)	--	--	--	--	--	--	--

07175500 CANEY RIVER NEAR RAMONA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	965	954	1040	1200	964	---	902	1280	1520	654	601	610
2	871	840	1050	1220	967	510	875	1260	1510	688	587	607
3	793	832	1070	970	954	633	785	1280	1530	655	584	610
4	742	1270	1070	612	980	574	904	1340	1490	844	592	625
5	720	1190	1110	318	774	556	906	1500	1540	645	608	618
6	723	1070	1130	346	810	560	904	1510	1380	318	631	273
7	885	1060	1130	406	951	568	950	1420	---	356	644	417
8	650	1030	1110	464	925	609	957	1420	777	235	657	510
9	237	1040	1140	567	904	630	978	1420	660	279	674	600
10	397	935	1160	---	986	641	978	1480	803	320	697	636
11	381	878	1170	668	798	653	1010	1480	711	334	708	685
12	481	872	1190	668	787	679	1040	1490	759	342	738	745
13	453	890	1200	726	978	697	1030	1480	1170	347	747	742
14	481	899	1190	755	1040	738	1020	1480	430	367	738	768
15	495	919	1180	766	1060	736	986	1480	651	371	748	773
16	508	935	1190	786	1220	758	1030	1480	682	380	746	763
17	530	935	1150	811	1310	799	997	1470	528	388	724	845
18	548	921	1130	818	1310	812	1060	1460	498	400	704	740
19	565	910	1170	804	1220	802	1070	1460	480	399	694	216
20	569	899	1100	847	1170	822	1030	1520	492	403	690	482
21	586	890	1090	868	967	863	1080	1510	505	403	678	360
22	611	890	1080	---	763	845	1100	1250	511	408	657	411
23	628	897	1140	---	751	838	1080	1500	518	409	657	401
24	642	890	1150	---	781	822	1120	1420	547	440	648	430
25	732	914	1140	883	696	822	1110	1680	565	428	628	208
26	1070	935	1140	888	688	---	1120	1770	550	450	636	276
27	708	961	1180	902	423	---	1170	1900	570	670	632	562
28	749	982	1150	923	370	852	1230	1690	622	554	614	284
29	785	982	1140	930	---	840	1280	1620	636	572	614	343
30	978	1000	1160	948	---	889	1350	1600	668	592	616	416
31	1040	---	1210	959	---	893	---	1540	---	664	620	---
MONTH	668	954	1140	780	912	730	1040	1490	804	462	662	525

07175500 CANEY RIVER NEAR RAMONA, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	14.0	14.0	6.0	5.0	8.0	15.0	25.0	24.0	27.0	30.0	27.0
2	25.0	13.0	12.0	6.0	4.0	7.0	16.0	23.0	27.0	30.0	26.0	26.0
3	20.0	11.0	13.0	9.0	5.0	7.0	15.0	17.0	25.0	28.0	27.0	29.0
4	20.0	11.0	11.0	6.0	5.0	7.0	14.0	25.0	27.0	28.0	28.0	30.0
5	21.0	14.0	13.0	3.0	5.0	7.0	14.0	23.0	26.0	28.0	29.0	30.0
6	21.0	14.0	10.0	5.0	5.0	8.0	17.0	22.0	27.0	26.0	25.0	27.0
7	21.0	13.0	10.0	8.0	3.0	9.0	15.0	23.0	26.0	28.0	28.0	28.0
8	20.0	14.0	9.0	5.0	2.0	9.0	12.0	20.0	25.0	28.0	28.0	29.0
9	15.0	12.0	10.0	3.0	5.0	9.0	13.0	22.0	25.0	30.0	28.0	31.0
10	15.0	13.0	15.0	---	4.0	10.0	22.0	22.0	26.0	30.0	32.0	30.0
11	15.0	13.0	8.0	4.0	4.0	9.0	23.0	26.0	27.0	30.0	27.0	27.0
12	16.0	12.0	10.0	3.0	4.0	11.0	22.0	---	30.0	34.0	25.0	29.0
13	17.0	11.0	7.0	4.0	3.0	12.0	17.0	26.0	27.0	30.0	27.0	30.0
14	16.0	12.0	10.0	4.0	5.0	17.0	19.0	25.0	28.0	30.0	28.0	32.0
15	16.0	11.0	10.0	5.0	7.0	11.0	19.0	24.0	29.0	29.0	29.0	25.0
16	16.0	11.0	7.0	4.0	10.0	11.0	20.0	27.0	28.0	31.0	29.0	23.0
17	16.0	10.0	12.0	5.0	11.0	15.0	20.0	24.0	27.0	34.0	32.0	20.0
18	16.0	12.0	12.0	5.0	10.0	15.0	20.0	25.0	31.0	30.0	28.0	20.0
19	17.0	11.0	8.0	4.0	11.0	12.0	20.0	27.0	30.0	28.0	28.0	17.0
20	---	11.0	8.0	5.0	10.0	15.0	19.0	25.0	30.0	33.0	27.0	18.0
21	16.0	14.0	8.0	4.0	8.0	13.0	23.0	25.0	31.0	29.0	30.0	19.0
22	17.0	9.0	10.0	---	6.0	14.0	20.0	22.0	30.0	29.0	28.0	20.0
23	18.0	8.0	11.0	---	5.0	12.0	18.0	23.0	32.0	26.0	28.0	18.0
24	17.0	7.0	7.0	---	6.0	14.0	19.0	21.0	33.0	29.0	28.0	20.0
25	19.0	9.0	10.0	9.0	13.0	12.0	21.0	26.0	32.0	31.0	29.0	20.0
26	18.0	14.0	5.0	6.0	10.0	---	20.0	22.0	33.0	26.0	35.0	22.0
27	16.0	---	5.0	5.0	11.0	---	22.0	25.0	33.0	30.0	28.0	25.0
28	18.0	9.0	6.0	8.0	9.0	15.0	20.0	22.0	33.0	27.0	28.0	27.0
29	17.0	11.0	4.0	9.0	---	17.0	20.0	26.0	32.0	28.0	25.0	25.0
30	15.0	14.0	6.0	8.0	---	14.0	19.0	21.0	28.0	30.0	24.0	24.0
31	13.0	---	5.0	6.0	---	14.0	---	25.0	---	30.0	28.0	---
MONTH	17.5	11.5	9.0	5.5	6.5	11.5	18.0	23.5	28.5	29.5	28.0	25.0

07177500 BIRD CREEK NEAR SPERRY, OKLA.

LOCATION.--Lat 36°16'42", long 95°57'14", in NW1/4NW1/4 sec.29, T.21 N., R.13 E., Tulsa County, at gaging station at bridge on county road, 1.5 mi (2.4 km) upstream from Delaware Creek, 2.4 mi (3.9 km) downstream from Hominy Creek, 2.5 mi (4.0 km) southeast of Sperry, and at mile 25.0 (40.2 km).

DRAINAGE AREA.--905 sq mi (2,344.0 km²).

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1953, December 1959 to August 1962, October 1964 to current year.
Water temperatures: October 1951 to September 1953, October 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
01-08	92	81	90	4	13	160	--	.80
09-12	1400	28	58	0	10	51	--	1.4
13-21	37	42	72	0	12	90	--	2.2
22-25	16	77	92	0	14	150	--	2.8
26-31	138	45	102	0	16	85	--	1.0
NOV.								
01-10	21	67	92	6	16	140	--	.60
11-20	3.4	95	114	0	20	200	--	2.1
21-30	7.0	120	132	0	20	260	--	1.7
DEC.								
01-10	7.3	140	162	0	18	290	--	1.6
11-20	6.8	140	176	0	19	300	--	.60
21-31	15	140	196	0	19	290	--	1.1
JAN.								
01-03	153	160	156	0	27	300	.00	.00
04-07	835	37	84	0	20	73	.63	2.8
08-14	63	56	96	0	22	110	.54	2.4
15-20	39	70	128	0	29	140	.56	2.5
21-31	27	90	144	0	29	180	.79	3.5
FEB.								
01-05	79	130	106	0	16	270	.34	1.5
06-07	263	64	110	0	26	130	.77	3.4
08-19	48	86	118	0	30	170	.77	3.4
20-24	220	55	80	0	31	110	.68	3.0
25-28	984	44	70	0	24	85	.54	2.4
MAR.								
01-10	111	70	100	0	26	130	.05	.20
11-20	38	82	138	0	31	160	.63	2.8
21-31	18	98	158	0	31	200	.29	1.3
APR.								
01-15	9.1	140	182	0	32	290	.34	1.5
16-27	16	160	166	0	31	340	.36	1.6
28-29	258	81	152	4	30	170	.16	.70
30...	93	160	114	0	30	350	.05	.20
MAY								
01-10	32	130	162	6	38	260	.50	2.2
11-23	18	180	176	6	33	390	.41	1.8
24-25	132	120	166	4	34	230	.50	2.2
26-27	272	71	38	12	24	130	.18	.80
28-31	217	99	100	0	31	220	.72	3.2
JUNE								
01-03	81	110	96	6	28	230	.52	2.3
04-12	192	76	110	0	22	160	.66	2.9
17-30	53	62	108	0	14	130	.45	2.0
JULY								
01-10	104		98	2	17	110	.32	1.4
11-24	124	75	124	0	18	150	.45	2.0
25-31	119	60	78	0	15	120	.63	2.8
AUG.								
01-10	15	58	82	0	12	120	.66	2.9
11-19	4.1	68	92	0	17	140	.38	1.7
20-23	2.0	65	96	0	14	130	.27	1.2
24-25	44	130	132	0	14	250	.47	2.1
26-31	3.6	100	100	0	13	200	.38	1.7
SEP.								
01-04	3.5	110	100	0	12	240	.34	1.5
05-08	13100	11	30	0	10	19	.41	1.8
09...	1890	18	62	3	12	32	.50	2.2
10-16	162	34	88	0	12	66	.52	2.3
17-20	5130	17	48	0	9.0	30	.41	1.8
21-24	348	29	80	0	14	54	.38	1.7
25-27	696	14	58	0	15	25	.29	1.3
28-30	379	26	86	0	16	43	.27	1.2
WTD. AVG.	--	27	54	0	13	51	--	1.9
TIME WTD. AVG.	308	89	120	1	22	183	--	1.9
TOT. LOAD (TONS)	--	8100	16100	54	3870	15400	--	557

07177500 BIRD CREEK NEAR SPERRY, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 930 mg/l May 11-23; minimum, 85 mg/l Sept. 5-8.
Hardness: Maximum, 330 mg/l May 11-23; minimum, 37 mg/l Sept. 5-8.
Specific conductance: Maximum daily, 1,870 micromhos Apr. 27; minimum daily, 82 micromhos Sept. 7.
Water temperatures: Maximum, 36.0°C June 24; minimum, 1.0°C Feb. 7.

Period of record.--Dissolved solids (1951-53, 1964-71): Maximum, 3,590 mg/l Nov. 12-16, 18-20, 1952; minimum, 76 mg/l Sept. 21-23, 1965.
Hardness (1951-53, 1964-67, 1969-71): Maximum, 924 mg/l Nov. 12-16, 18-20, 1952; minimum, 37 mg/l Sept. 5-8, 1971.
Specific conductance (1951-53, 1964-71): Maximum daily, 1,050 micromhos Nov. 11, 1952; minimum daily, 82 micromhos Sept. 5-8, 1971.
Water temperatures (1951-53, 1964-71): Maximum, 36.0°C June 24, 1971; minimum, freezing point on Jan. 6-7, 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-08	408	.55	101	140	59	3.0	709	8.4
09-12	180	.24	719	72	24	1.4	292	7.7
13-21	276	.38	27.6	100	41	1.8	453	7.6
22-25	400	.54	17.3	140	65	2.8	670	8.0
26-31	299	.41	111	120	36	1.8	477	8.0
NOV.								
01-10	386	.52	21.9	140	55	2.5	654	8.6
11-20	541	.74	497	180	86	3.1	867	8.1
21-30	680	.92	12.8	230	122	3.4	1110	7.9
DEC.								
01-10	744	1.01	14.7	260	127	3.8	1230	8.3
11-20	761	1.03	14.0	270	126	3.7	1250	8.2
21-31	755	1.03	30.6	280	119	3.6	1270	8.2
JAN.								
01-03	720	.98	297	250	120	4.4	1230	8.2
04-07	259	.35	584	110	41	1.5	419	8.0
08-14	344	.47	58.5	130	51	2.1	562	8.1
15-20	442	.60	46.5	170	65	2.3	710	8.1
21-31	526	.72	38.3	200	82	2.8	855	8.2
FEB.								
01-05	622	.85	133	200	110	4.0	1080	8.3
06-07	372	.51	264	170	80	2.1	671	8.3
08-19	468	.64	55.6	180	83	2.8	800	8.2
20-24	317	.43	195	140	74	2.0	547	7.9
25-28	266	.36	707	110	53	1.8	447	8.0
MAR.								
01-10	383	.52	115	150	68	2.5	649	8.3
11-20	460	.63	47.2	200	87	2.5	790	8.3
21-31	533	.72	25.9	230	100	2.8	903	8.3
APR.								
01-15	704	.96	17.3	280	130	3.6	1230	8.3
16-27	764	1.04	33.0	290	150	4.1	1390	8.2
28-29	472	.64	329	220	89	2.4	849	8.5
30...	790	1.07	198	260	170	4.3	1400	8.2
MAY								
01-10	656	.89	56.7	260	120	3.5	1170	8.5
11-23	930	1.26	45.2	330	170	4.3	1560	8.5
24-25	616	.84	220	260	120	3.2	1070	8.4
26-27	319	.43	234	100	49	3.1	571	8.8
28-31	491	.67	288	230	150	2.8	886	7.9
JUNE								
01-03	548	.75	60.7	190	100	3.5	968	8.6
04-12	431	.59	223	170	80	2.5	748	7.7
17-30	358	.49	51.2	150	61	2.2	629	7.7
JULY								
01-10	324	.44	91.0	130	46	2.1	561	8.4
11-24	414	.56	139	160	58	2.6	706	7.9
25-31	330	.45	106	120	56	2.4	575	7.9
AUG.								
01-10	333	.45	13.5	120	53	2.3	543	7.8
11-19	398	.54	4.40	130	55	2.6	638	7.9
20-23	369	.50	1.99	130	51	2.5	603	7.9
24-25	629	.86	74.7	210	100	3.9	1060	7.9
26-31	501	.68	4.87	170	88	3.4	857	8.0
SEP.								
01-04	562	.76	5.31	180	98	3.6	968	7.6
05-08	85	12.0	3000	37	12	.8	134	7.1
09...	153	.21	781	70	19	.9	228	8.1
10-16	456	.62	199	100	28	1.5	692	7.4
17-20	130	.18	1800	52	13	1.0	198	7.0
21-24	210	.29	197	92	26	1.3	336	7.2
25-27	135	.18	180	66	18	.8	208	7.2
28-30	195	.27	200	94	23	1.1	308	7.1
WTD. AVG.	175	5.84	--	71	26	1.2	286	7.4
TIME WTD. AVG.	489	.80	--	183	83	2.8	827	8.1
TOT. LOAD (TONS)	52500	--	--	--	--	--	--	--

07177500 BIRD CREEK NEAR SPERRY, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	672	504	1240	1360	1050	---	1110	1060	908	669	526	519
2	692	505	1230	1270	955	552	1110	1110	1000	---	523	583
3	715	595	1240	1290	980	575	1150	1110	1010	520	525	1000
4	712	601	1230	450	1430	623	1150	1080	769	509	530	---
5	720	714	1230	408	1440	697	1200	1080	771	514	535	167
6	765	696	---	401	672	694	1280	1130	704	483	552	165
7	793	750	1220	436	666	694	1240	1330	737	476	547	82
8	905	743	1240	470	813	707	1280	---	733	485	548	102
9	255	742	1250	475	776	721	1320	1310	637	670	570	220
10	291	772	1260	---	777	718	1310	1310	---	683	580	364
11	290	782	1280	525	743	739	1310	---	---	682	595	366
12	290	804	1280	562	795	742	1330	1430	---	674	595	388
13	331	809	1290	664	779	742	1320	---	---	649	698	366
14	374	830	1290	662	779	743	1320	1490	---	644	704	385
15	403	833	1310	709	795	789	1320	1480	---	653	699	412
16	433	870	1320	719	820	782	1310	1490	---	645	669	402
17	443	889	1310	689	827	803	1300	1530	---	670	640	213
18	461	888	1300	689	832	882	1380	1610	---	672	606	225
19	513	921	1120	718	855	876	1310	---	---	742	587	184
20	534	1070	1110	738	569	905	1340	1620	---	742	---	165
21	564	1020	1110	751	532	887	1360	1760	---	768	606	255
22	600	1020	1100	761	532	902	1380	1540	---	766	598	334
23	848	1030	1160	775	536	893	1400	1740	---	788	604	371
24	613	1100	1260	798	579	910	1520	1070	614	784	978	424
25	608	1030	1260	886	---	946	1460	1070	615	534	1140	205
26	424	1160	1260	889	---	951	1460	597	614	530	857	206
27	425	1150	1310	889	449	949	1870	640	606	580	---	206
28	424	1150	1440	903	444	1000	851	876	624	628	855	257
29	553	1210	1410	920	---	1000	894	874	630	686	847	306
30	501	1210	1410	935	---	---	1400	886	668	537	851	352
31	498	---	1400	937	---	1130	---	879	---	525	884	---
MONTH	537	880	1260	756	786	812	1300	1220	---	630	671	346

07178050 BIRD CREEK NEAR CATOOSA, OKLA.

LOCATION.--Lat 36°13'51", long 95°49'55", Tulsa County, at bridge on U.S. Highway 75, approximately 5.5 mi (8.8 km) northwest of Catoosa.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)
OCT.							
08...	17	108	0	48	32	3.7	.57
19...	45	94	0	39	58	23	12
NOV.							
04...	49	132	0	52	71	16	6.6
17...	38	122	0	49	44	28	11
DEC.							
15...	54	156	0	46	61	.50	19
29...	79	122	0	52	120	42	16
JAN.							
11...	52	122	0	41	81	.50	4.9
FEB.							
11...	62	144	0	58	100	15	4.9
24...	59	100	0	38	110	2.0	.52
MAR.							
09...	60	124	0	49	100	12	6.1
APR.							
08...	--	--	--	--	--	--	--
21...	64	180	0	61	86	.30	13
MAY							
07...	--	--	--	--	--	--	--
19...	50	120	0	48	71	26	8.0
JUNE							
02...	84	120	0	45	160	21	6.0
JULY							
02...	--	--	--	--	--	--	--
28...	18	114	0	42	30	4.9	1.2
AUG.							
10...	52	108	0	38	61	36	16
25...	--	--	--	--	--	--	--
SEP.							
21...	23	76	0	24	41	.60	.44

07177500 BIRD CREEK NEAR SPERRY, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	11.0	13.0	4.5	4.0	---	17.0	20.0	24.5	28.0	24.0	27.0
2	24.0	10.0	13.0	6.0	4.0	5.5	16.0	18.0	25.0	---	25.0	27.0
3	21.0	10.0	11.5	7.0	5.0	6.5	14.0	20.0	25.0	29.0	24.0	27.0
4	21.0	9.0	11.0	5.0	4.0	7.0	13.0	22.0	24.0	30.0	25.0	---
5	22.0	11.0	10.0	4.0	5.0	7.0	14.5	23.0	24.0	28.0	27.0	24.0
6	22.0	11.0	---	3.5	2.0	6.5	15.0	25.0	25.0	30.0	27.0	23.0
7	21.5	11.0	9.0	2.0	1.0	7.5	15.0	20.0	26.5	30.0	26.0	25.0
8	18.0	11.0	8.5	2.0	1.0	9.0	16.0	---	26.0	30.5	24.0	26.0
9	15.5	11.0	12.0	3.0	2.0	10.0	15.0	21.0	27.0	30.0	27.0	27.0
10	16.5	11.0	11.0	---	4.5	11.0	16.0	21.0	---	28.0	27.0	25.0
11	16.5	10.0	8.0	3.5	4.0	13.0	16.0	---	---	30.0	27.0	24.0
12	15.5	11.0	9.0	2.0	4.0	12.0	20.0	24.0	---	30.5	27.0	27.0
13	15.5	8.0	9.0	2.0	3.0	11.0	18.0	---	---	32.5	27.0	27.0
14	16.0	9.0	7.0	2.0	3.0	19.0	16.0	20.0	---	33.0	26.0	26.0
15	16.0	8.0	6.0	3.0	6.0	15.0	20.0	22.0	---	31.5	27.0	24.5
16	15.0	9.0	7.0	2.0	9.0	16.0	20.0	21.0	---	31.0	27.0	21.0
17	15.0	10.0	7.0	2.0	10.0	16.0	18.0	23.5	---	30.0	27.0	18.0
18	14.0	12.0	9.0	3.0	10.0	14.0	17.0	22.0	---	31.0	27.0	15.0
19	16.0	9.0	7.0	3.0	11.0	13.0	21.0	---	---	27.0	27.0	14.0
20	18.5	9.5	8.0	3.5	9.0	14.0	21.0	23.0	---	25.0	---	16.0
21	19.0	10.0	8.0	4.0	6.0	12.0	22.0	21.0	---	27.5	28.0	16.0
22	18.5	9.5	9.0	5.0	3.0	13.5	20.0	23.0	---	28.0	28.0	16.0
23	18.0	6.0	7.0	5.0	6.0	12.5	20.0	22.0	---	26.0	31.0	17.0
24	18.0	6.0	6.0	5.0	6.0	11.0	17.0	22.0	36.0	29.0	28.0	17.5
25	16.0	6.0	7.0	7.0	9.0	14.0	18.0	21.5	30.0	26.0	29.0	18.0
26	16.0	6.0	6.0	5.5	---	15.0	21.0	21.0	29.0	26.0	30.0	20.0
27	15.0	7.0	4.5	5.0	9.0	15.0	20.5	22.0	31.0	26.0	---	23.0
28	14.0	7.5	5.0	7.0	8.0	16.0	14.0	22.0	30.0	27.0	28.0	23.0
29	14.0	10.0	5.5	7.0	---	17.0	16.5	21.0	29.0	24.5	25.0	24.0
30	14.5	11.5	5.0	5.0	---	---	19.0	22.0	29.0	25.0	25.0	24.0
31	13.0	---	6.0	4.0	---	17.0	---	22.0	---	25.0	25.0	---
MONTH	17.5	9.5	8.0	4.0	5.5	12.5	17.5	21.5	---	28.5	26.5	22.0

07178050 BIRD CREEK NEAR CATOOSA, OKLA.

DRAINAGE AREA.--1,080 sq mi (2,797.2 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
08...	239	.33	150	61	.6	390	7.6
19...	296	.40	130	53	1.7	485	7.3
NOV.							
04...	356	.48	180	72	1.6	588	7.7
17...	312	.42	160	60	1.3	508	7.6
DEC.							
15...	351	.48	150	22	1.9	557	7.0
29...	461	.63	190	90	2.5	765	7.9
JAN.							
11...	327	.44	150	50	1.8	552	7.0
FEB.							
11...	432	.59	210	92	1.9	718	7.4
24...	375	.51	160	78	2.0	629	7.5
MAR.							
09...	408	.55	180	78	1.9	667	7.1
APR.							
08...	--	--	--	--	--	700	--
21...	428	.58	190	42	2.0	691	7.0
MAY							
07...	--	--	--	--	--	1010	--
19...	363	.49	160	62	1.7	588	7.6
JUNE							
02...	509	.69	200	100	2.6	847	7.7
JULY							
02...	--	--	--	--	--	333	--
28...	241	.33	140	46	.7	387	7.6
AUG.							
10...	330	.45	130	81	2.0	529	7.6
25...	--	--	--	--	--	484	--
SEP.							
21...	182	.25	94	32	1.0	307	7.0

07178600 VERDIGRIS RIVER NEAR INOLA, OKLA.

LOCATION.--Lat 36°09'43", long 95°37'07", in northwest corner sec.4, T.19 N., R.16 E., Rogers County, at gaging station at bridge on State Highway 33, 1.0 mi (1.6 km) upstream from Salt Creek, 6.0 mi (9.6 km) west of Inola, and at mile 48.8 (78.5 km).

DRAINAGE AREA.--7,911 sq mi (20,489.5 km²).

PERIOD OF RECORD.--Chemical analyses: October 1947 to current year.
Water temperatures: October 1950 to September 1965, October 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.							
01-04	18	52	8	20	27	.50	.05
05-15	26	48	14	21	45	.20	.01
16-24	17	96	4	29	24	1.9	.14
25-27	13	60	0	18	17	4.0	.04
28-31	22	104	4	33	32	2.7	.51
NOV.							
01-15	23	110	8	31	38	2.3	.10
16-30	24	132	0	40	36	4.4	.60
DEC.							
01-10	34	140	0	54	47	10	2.7
11-18	37	148	0	54	53	10	2.2
19-23	56	154	0	60	90	12	4.1
24-31	31	170	0	39	47	4.9	.47
JAN.							
01-08	32	84	12	37	49	.90	.00
09-11	18	106	0	28	26	4.4	.23
12-20	21	136	0	25	32	2.6	.12
21-31	23	118	6	29	36	3.2	.00
FEB.							
01-10	37	126	2	38	66	9.2	.90
11-20	51	124	0	44	98	5.2	.80
21-28	41	126	2	41	74	4.6	.60
MAR.							
01-15	31	132	0	43	50	2.3	.00
16-31	36	136	8	43	59	2.5	.23
APR.							
01-10	40	164	8	46	65	4.8	.60
11-20	40	156	8	47	68	4.5	.60
21-30	44	160	8	54	71	4.7	15
MAY							
01-10	60	92	44	59	97	4.7	.85
11-20	60	136	26	58	99	8.8	2.4
21-31	69	116	28	51	120	5.1	1.2
JUNE							
01-09	65	96	20	44	130	2.7	.49
10-11	120	146	16	48	250	2.0	.48
12-20	35	178	0	39	61	2.7	.18
21-30	34	170	0	38	61	2.3	.16
JULY							
01-10	36	96	34	35	58	.10	.18
11-20	32	148	0	35	52	2.8	.15
21-31	30	162	0	33	53	2.8	.78
AUG.							
01-15	44	104	22	34	69	2.7	.60
16-31	43	60	28	32	69	.60	.05
SEP.							
01-05	43	136	0	37	73	4.1	.65
06-15	13	48	0	14	22	2.5	.33
16-18	25	82	0	27	37	3.8	.08
19-24	16	52	0	21	24	2.7	.25
25-30	25	66	8	22	42	2.2	.22

07178600 VERDIGRIS RIVER NEAR INOLA, OKLA.

EXTREMES, Current year. Dissolved solids: Maximum, 678 mg/1 June 10-11; minimum, 117 mg/1 Sept. 6-15.
Hardness: Maximum, 290 mg/1 June 10-11; minimum, 58 mg/1 Sept. 6-15.
Specific conductance: Maximum daily, 1,180 micromhos June 10; minimum daily, 125 micromhos Sept. 8.
Water temperatures: Maximum, 32.0°C Aug. 26; minimum, 1.0°C Feb. 9.

Period of record.--Dissolved solids: Maximum, 3,060 mg/1 Sept. 21-24, 1956; minimum, 87 mg/1 Oct. 12-14, 1969.
Hardness: Maximum, 580 mg/1 Sept. 21-24, 1956; minimum, 44 mg/1 Oct. 12-14.
Specific conductance: Maximum daily, 6,030 micromhos Sept. 22, 1956; minimum daily, 123 micromhos Oct. 12, 1969.
Water temperatures (1950-65, 1967-71): Maximum, 36.0°C July 17, 18, 1970; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-04	142	.19	72	16	.9	242	9.0
05-15	190	.26	88	25	1.2	316	9.2
16-24	185	.25	110	25	.7	304	8.6
25-27	129	.18	66	17	.7	207	7.9
28-31	216	.29	120	28	.9	351	8.6
NOV.							
01-15	229	.31	140	36	.8	381	8.7
16-30	249	.34	150	42	.9	417	8.1
DEC.							
01-10	315	.43	170	55	1.1	513	8.2
11-18	342	.47	190	69	1.2	546	8.1
19-23	416	.57	210	84	1.7	683	8.1
24-31	306	.42	190	51	1.0	501	8.3
JAN.							
01-08	247	.34	130	41	1.2	418	8.7
09-11	198	.27	110	23	.7	321	8.2
12-20	229	.31	140	28	.8	375	8.3
21-31	234	.32	140	33	.8	385	8.6
FEB.							
01-10	300	.41	160	53	1.3	510	8.4
11-20	356	.48	180	78	1.7	607	8.3
21-28	328	.45	170	63	1.4	534	8.4
MAR.							
01-15	265	.36	150	42	1.1	456	8.2
16-31	292	.40	170	45	1.2	496	8.6
APR.							
01-10	324	.44	200	52	1.2	543	8.5
11-20	346	.47	200	59	1.2	569	8.5
21-30	347	.47	200	55	1.4	570	8.5
MAY							
01-10	379	.52	220	71	1.8	640	9.4
11-20	416	.57	230	75	1.7	697	9.1
21-31	434	.59	220	78	2.0	735	9.2
JUNE							
01-09	407	.55	190	78	2.1	701	9.2
10-11	678	.92	290	140	3.1	1150	8.9
12-20	322	.44	200	54	1.1	552	7.8
21-30	305	.41	190	51	1.1	538	8.3
JULY							
01-10	280	.38	170	35	1.2	475	9.4
11-20	285	.39	170	49	1.1	489	8.2
21-31	283	.38	170	37	1.0	494	8.1
AUG.							
01-15	304	.41	160	38	1.5	502	9.0
16-31	277	.38	130	34	1.6	452	9.4
SEP.							
01-05	304	.41	158	46	1.5	497	8.3
06-15	117	.16	58	19	.7	179	7.9
16-18	192	.26	98	31	1.1	311	7.6
19-24	132	.18	66	23	.9	205	6.9
25-30	179	.24	86	25	1.2	289	8.7

07178600 VERDIGRIS RIVER NEAR INOLA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	361	480	496	422	472	776	648	836	514	526	508
2	293	367	483	481	422	449	579	643	804	505	512	512
3	302	366	516	484	433	472	567	642	715	527	529	512
4	290	360	503	485	457	490	577	641	662	509	540	516
5	337	338	488	555	638	518	580	652	708	518	525	560
6	338	403	496	501	503	531	570	652	702	506	525	198
7	437	403	516	411	606	499	574	677	722	530	528	142
8	444	405	518	391	535	475	570	680	769	508	527	125
9	444	428	532	335	530	466	571	681	612	478	527	173
10	295	407	522	312	509	482	570	679	1180	478	514	175
11	293	463	536	316	511	460	563	689	1140	486	525	196
12	345	404	532	357	512	458	566	713	551	492	512	196
13	308	397	532	363	542	462	577	746	528	492	517	201
14	313	431	537	307	539	465	569	710	532	527	516	199
15	309	384	532	379	578	477	580	713	570	465	518	199
16	351	386	551	376	598	474	570	697	564	468	516	253
17	303	380	549	380	798	477	568	738	563	492	526	338
18	305	386	554	383	638	488	563	737	548	497	513	327
19	283	372	747	382	695	485	571	757	544	486	508	164
20	284	382	799	382	708	485	575	748	547	474	514	187
21	288	381	817	384	591	484	570	762	541	486	519	194
22	386	381	797	385	595	493	575	764	511	490	513	204
23	268	421	860	388	526	506	587	854	541	---	514	226
24	270	412	616	382	523	514	592	770	562	484	511	237
25	195	422	567	392	493	550	596	760	---	480	506	392
26	201	424	574	404	498	555	601	769	---	481	508	277
27	202	456	568	393	499	556	605	676	---	490	508	225
28	288	478	593	416	552	573	611	655	546	498	574	260
29	360	457	539	407	---	571	619	767	533	512	516	258
30	382	467	531	413	---	570	686	798	525	506	516	362
31	381	---	528	412	---	575	---	847	---	515	511	---
MONTH	316	404	578	404	552	501	588	717	649	496	520	277

07185000 NEOSHO RIVER NEAR COMMERCE, OKLA.

LOCATION.--Lat 36°55'43", long 94°57'26", in SW1/4SE1/4 sec.5, T.28 N., R.22 E., Ottawa County, at gaging station at bridge on county road, 1.3 mi (2.1 km) upstream from Mud Creek, 2.2 mi (3.5 km) downstream from Fourmile Creek, 4.5 mi (7.2 km) west of Commerce, and at mile 153.4 (246.8 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT. 13...	6960	14	150	0	48	14	.68	3.0	.16	.19	244	.33
NOV. 17...	438	16	172	0	69	14	.70	3.2	.07	.23	288	.39
DEC. 15...	1020	16	200	2	57	18	.90	3.9	.06	.20	220	.30
JAN. 19...	780	21	216	0	81	20	.72	3.2	.01	.02	345	.47
FEB. 17...	730	20	196	0	96	22	.60	2.6	.09	.12	344	.47
MAR. 18...	1220	16	180	0	63	15	.80	3.5	.13	.40	280	.38
APR. 29...	912	24	178	0	110	22	.11	.50	.01	.30	348	.47
MAY 27...	6150	23	202	0	74	25	.52	2.3	.02	.08	327	.44
JUNE 24...	12100	6.6	126	0	20	5.0	.50	2.2	.17	.52	173	.24
JULY 23...	1420	8.3	152	0	34	9.7	.60	2.6	.18	.55	209	.28
AUG. 25...	685	12	164	4	37	11	.20	.90	.09	.28	226	.31
SEP. 09...	222	15	182	0	58	13	.14	.60	.10	.31	261	.35

07178600 VERDIGRIS RIVER NEAR INOLA, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 (ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	15.0	13.0	6.5	6.0	7.5	13.5	21.5	28.0	29.0	27.5	29.0
2	24.0	14.0	13.5	6.0	4.5	6.5	14.0	20.0	24.0	29.0	27.5	28.0
3	23.0	13.0	13.0	6.0	5.0	6.5	15.0	21.5	---	28.0	28.0	28.0
4	23.0	13.0	12.5	6.0	5.0	7.5	15.0	20.5	26.5	29.0	28.5	28.0
5	23.0	13.0	11.0	5.5	5.5	8.5	13.0	21.5	27.0	28.0	28.5	28.0
6	23.0	12.0	10.0	5.5	5.0	7.0	13.5	23.0	26.5	30.0	27.5	25.0
7	22.0	11.0	11.0	4.0	4.0	10.0	15.0	22.0	27.0	30.0	27.0	25.5
8	21.0	10.0	11.0	5.5	2.0	9.0	15.0	22.0	26.0	30.0	28.0	25.0
9	---	10.0	12.0	4.0	1.0	7.0	15.5	22.0	26.5	29.0	28.5	28.0
10	22.0	11.0	12.5	4.0	5.5	9.0	16.0	22.0	26.5	30.0	28.5	30.0
11	21.0	10.0	9.0	4.0	6.5	9.0	16.0	23.0	26.0	29.0	30.0	27.5
12	21.0	10.0	10.0	3.0	5.0	10.0	17.0	20.5	25.0	29.5	30.0	30.0
13	21.0	10.0	10.5	4.0	5.0	10.5	16.5	24.0	27.0	30.0	30.0	28.0
14	21.0	8.5	9.0	4.0	6.5	10.0	16.0	22.0	26.0	30.5	30.5	28.0
15	20.0	8.5	9.0	4.0	7.0	10.0	18.0	23.0	27.0	30.0	30.5	25.0
16	20.0	10.0	9.0	4.0	8.5	10.0	18.5	24.0	27.5	30.0	31.0	25.0
17	20.0	11.0	9.0	5.5	8.5	10.5	18.5	22.0	27.5	30.5	31.5	23.5
18	20.0	11.5	10.5	3.0	9.5	8.5	18.0	22.5	28.0	30.5	31.5	17.0
19	19.0	11.0	8.0	3.5	9.0	9.0	19.0	23.0	28.0	30.5	31.5	17.0
20	19.0	10.5	8.5	3.5	9.0	10.0	19.0	23.0	28.5	29.0	31.5	16.5
21	17.0	11.0	9.0	5.0	7.0	10.5	19.0	23.0	28.5	30.5	30.0	18.0
22	17.0	10.0	10.0	5.5	5.0	10.5	19.0	23.0	29.0	30.0	30.5	18.0
23	18.0	8.5	8.0	6.0	6.0	10.5	19.0	23.0	28.0	---	30.0	18.0
24	18.0	8.5	7.0	5.5	7.0	---	19.0	22.0	30.0	29.0	30.0	19.5
25	17.0	8.5	5.0	7.0	5.0	---	19.5	22.0	---	29.0	31.0	20.0
26	17.0	12.5	6.5	5.0	8.0	13.0	20.0	26.5	---	28.0	32.0	20.0
27	17.0	10.0	6.0	5.0	10.5	13.5	21.0	26.0	---	29.5	31.0	20.0
28	17.0	10.0	6.0	7.0	8.5	15.0	19.0	26.0	31.0	29.5	30.0	20.5
29	15.0	12.0	7.0	7.5	---	13.0	18.0	26.0	30.0	29.0	30.0	24.0
30	15.0	12.0	6.5	7.0	---	13.5	22.0	25.0	29.0	29.0	28.5	24.5
31	15.0	---	6.5	6.0	---	15.0	---	26.0	---	27.5	29.0	---
MONTH	19.5	11.0	9.5	5.0	6.5	10.0	17.5	23.0	27.5	29.5	29.5	24.0

07185000 NEOSHO RIVER NEAR COMMERCE, OKLA.

DRAINAGE AREA.--5,876 sq mi (15,218.8 km²).

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1954, December 1959 to current year. Water temperatures: November 1947 to September 1954.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (MG/L)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)
OCT.										
13...	4580	388	160	45	.5	367	8.2	40	140	14.0
NOV.										
17...	340	25	202	61	.5	468	8.0	5	20	6.9
DEC.										
15...	810	64	220	53	.5	484	8.3	5	45	6.6
JAN.										
19...	726	32	250	73	.6	568	8.1	5	20	9.4
FEB.										
17...	678	46	250	89	.6	560	8.1	20	19	9.3
MAR.										
18...	922	85	200	52	.5	455	8.1	5	30	8.6
APR.										
29...	857	80	240	94	.7	555	8.0	2	25	7.9
MAY										
27...	5430	417	240	74	.6	521	8.1	2	150	19.0
JUNE										
24...	5650	234	120	17	.3	260	7.9	5	65	12.0
JULY										
23...	801	98	160	35	.3	346	8.0	1	60	6.7
AUG.										
25...	418	40	170	29	.4	372	8.5	5	10	5.7
SEP.										
09...	156	35	190	41	.5	434	8.1	2	10	4.3

07185000 NEOSHO RIVER NEAR COMMERCE, OKLA.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT. 13...	382	8.4	13.5	9.1	93
NOV. 17...	420	8.1	8.0	10.9	98
DEC. 15...	460	7.8	5.0	11.4	96
JAN. 19...	600	8.4	.0	14.2	101
FEB. 17...	500	8.6	8.5	13.4	115
MAR. 18...	--	--	11.0	9.8	95
APR. 29...	580	8.4	18.5	8.2	93
MAY 27...	380	7.8	28.0	8.9	115
JUNE 24...	280	8.0	26.5	7.1	92
JULY 23...	600	7.6	25.5	7.6	96
AUG. 25...	320	8.0	29.0	7.5	99
SEP. 09...	310	8.4	30.0	6.6	91

07191000 BIG CABIN CREEK NEAR BIG CABIN, OKLA.

LOCATION.--Lat 36°31'00", long 95°08'18", in NW1/4SE1/4 sec.35, T.24 N., R.20 E., Craig County, at gaging station at bridge on county road, 2.3 mi (3.7 km) upstream from Mustang Creek, 5.0 mi (8.0 km) southeast of Big Cabin, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--466 sq mi (1,206.9 km²).

PERIOD OF RECORD.--Chemical analyses: September 1951 to September 1955, January 1964 to current year.

REMARKS.--Chemical data of miscellaneous samples published for water years 1956-60.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
NOV.								
04...	115	10	98	0	53	7.0	--	1.6
24...	59	13	102	0	82	6.0	--	.30
DEC.								
15...	1.9	18	148	0	96	11	--	1.8
JAN.								
21...	57	15	118	0	93	8.2	--	.40
29...	38	16	118	0	100	7.6	--	2.1
FEB.								
16...	87	16	108	0	100	8.4	--	2.2
MAR.								
09...	155	17	82	0	94	9.0	.11	.50
29...	36	--	--	--	--	--	--	--
APR.								
27...	64	22	104	0	140	12	.02	.10
MAY								
24...	605	8.4	62	0	66	3.7	.00	.00
JUNE								
21...	7.4	14	96	0	60	9.2	.02	.10
JULY								
14...	6.5	12	90	0	53	7.1	.11	.50
AUG.								
24...	1.9	--	--	--	--	--	--	--
SEP.								
13...	.79	16	182	0	36	14	.05	.20

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
NOV.								
04...	183	.25	56.8	120	40	.4	293	7.4
24...	219	.30	34.9	140	56	.5	354	7.4
DEC.								
15...	287	.39	14.7	200	79	.6	462	7.6
JAN.								
21...	250	.34	38.5	164	67	.5	395	7.4
29...	264	.36	27.1	180	83	.5	421	7.6
FEB.								
16...	242	.33	56.8	170	81	.5	366	7.3
MAR.								
09...	226	.31	94.6	140	73	.6	357	7.4
29...	--	--	--	--	--	--	445	--
APR.								
27...	313	.43	54.1	200	120	.7	492	7.4
MAY								
24...	130	.18	212	82	31	.4	212	7.0
JUNE								
21...	195	.27	3.90	120	41	.6	325	7.3
JULY								
14...	170	.23	3.00	110	36	.5	285	7.4
AUG.								
24...	--	--	--	--	--	--	361	--
SEP.								
13...	230	.31	.49	170	21	.5	343	7.8

07192030 PRYOR CREEK AT ELLIOT STREET BRIDGE, NEAR PRYOR, OKLA.

LOCATION.--Lat 36°16'00", long 95°18'30", in SW1/4SW1/4 sec.21, T.21 N., R.19 E., Mayes County, at Elliot Street Bridge, 1.3 mi (2.1 km) south of Pryor.

PERIOD OF RECORD.--Chemical analyses: July 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED AMMONIA (NH4) (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
OCT.					
06...	61	--	1.0	1.3	409
13...	16	--	1.3	.22	227
16...	26	--	1.8	.97	273
23...	12	--	.80	.79	216
NOV.					
01...	15	--	.40	.08	198
08...	21	--	1.0	.16	249
13...	38	--	1.1	.54	324
21...	45	1.1	4.9	--	431
21...	17	--	.80	1.8	311
29...	34	--	.60	.40	370
DEC.					
06...	61	--	.50	2.5	483
11...	77	--	.40	2.6	538
18...	61	--	.40	3.1	533
27...	43	--	.70	.27	418
JAN.					
03...	12	--	1.7	.27	215
08...	15	--	2.3	.27	216
15...	28	--	1.9	.47	298
22...	20	--	.20	.96	336
29...	35	--	.00	2.3	413
FEB.					
06...	5.0	--	.00	1.0	195
13...	5.0	--	.30	1.3	3100
19...	28	--	.00	.70	377
26...	5.0	--	1.6	.47	198
MAR.					
05...	15	--	1.6	.15	265
APR.					
02...	50	.18	.80	.00	453
MAY					
07...	63	.00	.00	.13	491
JUNE					
08...	63	.09	.40	.37	540
JULY					
02...	38	.09	.40	.05	191
AUG.					
06...	58	.08	.40	.17	467
SEP.					
03...	120	.16	.70	.97	600

07192060 PRYOR CREEK BELOW SULFUR CREEK, NEAR PRYOR, OKLA.

LOCATION.--Lat 36°13'20", long 95°15'20", in NW1/4NE1/4 sec.10, T.20 N., R.19 E., Mayes County, at abandoned bridge, approximately 2.0 mi (3.2 km) downstream from Sulfur Creek, and 5.4 mi (8.7 km) southeast of Pryor.

PERIOD OF RECORD.--Chemical analyses: July 1966 to current year.
Water temperatures: July 1966 to September 1967.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED AMMONIA (NH4) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)
OCT.					
06...	106	--	19	6.7	796
13...	18	--	2.9	.14	229
16...	47	--	9.1	1.6	461
23...	30	--	.60	.52	343
NOV.					
01...	16	--	4.5	.10	265
08...	70	--	.40	.67	476
13...	49	--	12	4.7	460
21...	45	1.1	4.9	2.0	431
29...	100	--	13	1.7	690
DEC.					
06...	63	--	17	6.6	668
11...	47	--	14	8.8	565
18...	94	--	14	2.4	605
27...	39	--	32	24	588
JAN.					
03...	30	--	9.3	2.4	356
08...	36	--	5.3	1.0	327
15...	39	--	6.0	1.8	418
22...	70	--	.20	2.0	549
29...	82	--	.10	1.6	601
FEB.					
08...	5.0	--	.30	.20	206
13...	36	--	.10	.12	406
19...	25	--	.10	1.6	402
26...	5.0	--	2.3	2.4	196
MAR.					
05...	10	--	4.4	.00	301
19...	25	--	6.2	.00	399
26...	40	--	9.6	.52	454
MAY					
07...	63	.00	.00	.82	506
14...	19	.00	.00	.53	203
22...	10	.00	.00	.05	152
28...	5.0	.00	.00	.23	271
JUNE					
04...	39	.00	.00	.50	363
11...	15	.07	.30	.63	259
21...	29	.00	.00	.29	362
25...	36	.00	.00	.50	446
JULY					
02...	12	.00	.00	.37	217
10...	21	.02	.10	.20	297
16...	44	.00	.00	1.5	440
23...	49	.14	.60	.33	577
30...	62	3.4	15	.37	662
AUG.					
06...	61	1.6	7.0	.02	600
14...	63	2.5	11	.30	673
22...	64	.66	2.9	.00	651
29...	90	1.1	4.7	.00	760
SEP.					
03...	81	1.2	5.4	.17	756
10...	190	1.8	8.1	.00	1060
18...	92	6.3	28	5.2	768

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OKLA.

LOCATION.--Lat 35°51'15", long 95°13'45", in SE1/4NW1/4 sec.19, T.16 N., R.20 E., Cherokee County at Fort Gibson Dam, 1.1 mi (1.8 km) upstream from gaging station, and 4.0 mi (6.4 km) north of Fort Gibson, and at mile 6.6 (10.6 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
01...	11700	--	--	--	--	--	--	--
15...	5290	8.3	110	0	31	10	.02	.10
NOV.								
01...	15300	--	--	--	--	--	--	--
15...	2640	7.5	108	0	29	8.0	--	1.1
DEC.								
15...	5100	7.8	108	0	29	9.5	--	.70
JAN.								
15...	12500	8.4	114	0	31	10	--	.08
FEB.								
01...	10100	--	--	--	--	--	--	--
15...	9500	8.1	114	0	29	10	--	2.6
MAR.								
15...	7500	8.4	116	0	41	10	.56	2.5
APR.								
01...	222	8.6	110	0	37	10	.34	1.5
MAY								
15...	898	9.1	122	0	37	11	.36	1.6
JUNE								
01...	11100	--	--	--	--	--	--	--
15...	11100	11	124	0	42	13	.02	.10
JULY								
01...	11000	--	--	--	--	--	--	--
15...	11000	11	116	0	44	13	.23	1.0
AUG.								
01...	557	10	116	0	44	12	.59	2.6
SEP.								
02...	218	--	--	--	--	--	--	--
15...	328	10	112	0	41	12	.14	.60

07195500 ILLINOIS RIVER NEAR WATTS, OKLA.

LOCATION.--Lat 36°07'48", long 94°34'12", in NE1/4 sec.18, T.19 N., R.26 E., Adair County, at gaging station at bridge on U.S. Highway 59, 1.5 mi (2.4 km) north of Watts, 4.5 mi (7.2 km) downstream from Cincinnati Creek, and at mile 106.2 (170.9 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.									
13...	1180	4.8	92	0	7.5	6.5	8.5	.25	.31
NOV.									
17...	862	4.0	90	0	7.4	6.6	7.9	.06	.18
DEC.									
16...	455	5.6	120	0	3.0	7.5	9.2	.13	.40
JAN.									
20...	670	4.5	96	0	9.0	6.0	7.9	.01	.04
FEB.									
17...	470	4.9	100	0	9.2	6.4	5.5	.10	.32
MAR.									
18...	548	4.8	108	0	7.8	7.5	6.6	.15	.46
APR.									
30...	410	4.6	100	0	9.2	6.5	3.2	.14	.43
MAY									
27...	772	4.1	88	0	2.3	5.0	5.2	.17	.52
JUNE									
25...	138	6.9	132	0	5.8	9.5	1.5	.19	.59
JULY									
23...	18200	6.8	134	0	8.6	10	.20	.11	.72
AUG.									
24...	96	7.7	142	0	5.4	9.7	1.4	.21	.66
SEP.									
28...	1080	11	140	0	8.1	14	.60	.20	.61

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OKLA.

DRAINAGE AREA.--12,492 sq mi (32,354.3 km²).

PERIOD OF RECORD.--Chemical analyses: October 1951 to current year.
Water temperatures: October 1951 to September 1963.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01...	--	--	--	--	--	--	281	--
15...	163	.22	2330	110	20	.3	270	8.0
NOV.								
01...	--	--	--	--	--	--	261	--
15...	154	.21	1100	110	25	.3	255	7.8
DEC.								
15...	160	.22	2200	110	21	.3	263	8.0
JAN.								
15...	166	.23	5600	120	26	.3	279	7.7
FEB.								
01...	--	--	--	--	--	--	278	--
15...	169	.23	4330	120	26	.3	281	8.0
MAR.								
15...	163	.22	3300	140	45	.3	292	7.6
APR.								
01...	170	.23	102	130	33	.3	293	7.7
MAY								
15...	182	.25	439	130	30	.3	302	7.9
JUNE								
01...	--	--	--	--	--	--	311	--
15...	186	.25	5570	140	38	.4	316	8.0
JULY								
01...	--	--	--	--	--	--	312	--
15...	188	.26	5580	140	45	.4	320	7.9
AUG.								
01...	182	.25	274	130	35	.4	312	8.0
SEP.								
02...	--	--	--	--	--	--	305	8.0
15...	180	.24	159	130	38	.4	303	7.6

07195500 ILLINOIS RIVER NEAR WATTS, OKLA.

DRAINAGE AREA.--635 sq mi (1,644.6 km²).

PERIOD OF RECORD.--Chemical analyses: October 1955 to August 1956, October 1959 to May 1961, July, 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT. 13...	133	.18	424	88	13	.2	197	7.7
NOV. 17...	120	.16	279	90	16	.2	203	7.9
DEC. 16...	140	.19	166	110	12	.2	248	8.2
JAN. 20...	122	.17	221	92	13	.2	208	7.9
FEB. 17...	123	.17	166	96	14	.2	217	7.0
MAR. 18...	126	.17	186	100	11	.2	226	8.0
APR. 30...	123	.17	136	92	10	.2	209	7.9
MAY 27...	113	.15	243	80	8	.2	182	7.9
JUNE 25...	145	.20	51.7	110	2	.3	248	7.9
JULY 23...	147	.20	7260	110	0	.3	249	7.9
AUG. 24...	150	.20	30.9	120	4	.3	264	7.8
SEP. 28...	161	.22	469	120	5	.4	278	7.9

07195500 ILLINOIS RIVER NEAR WATTS, OKLA.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT.					
13...	210	8.3	15.0	9.1	97
NOV.					
17...	192	8.0	8.5	10.5	96
DEC.					
16...	250	8.0	6.0	11.4	98
JAN.					
20...	--	--	4.0	12.0	96
FEB.					
17...	255	7.6	10.0	10.2	96
MAR.					
18...	500	8.2	11.0	10.1	98
APR.					
30...	220	8.3	17.0	9.2	100
MAY					
27...	143	7.4	20.5	8.9	102
JUNE					
25...	225	8.1	27.5	6.7	89
JULY					
23...	440	8.2	26.0	5.6	71
AUG.					
24...	260	7.6	29.0	7.1	95
SEP.					
28...	410	8.8	23.5	8.1	99

07198000 ILLINOIS RIVER NEAR GORE, OKLA.

LOCATION.--Lat 35°34'23", long 95°04'07", in NE1/4SW1/4 sec.27, T.13 N., R.21 E., Sequoyah County, at Tenkiller Ferry Dam, 4.3 mi (6.9 km) upstream from gaging station, 6.0 mi (9.6 km) northeast of Gore, and at mile 12.8 (20.6 km).

DRAINAGE AREA.--1,610 sq mi (4,169.9 km²).

PERIOD OF RECORD.--Chemical analyses: October 1953 to current year.
Water temperatures: October 1953 to September 1963.

REMARKS.--No appreciable inflow between sampling point and gaging station except during periods of heavy local runoff.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
02...	251	--	--	--	--	--	--	--
15...	26	5.6	90	0	6.8	9.5	--	3.6
NOV.								
16...	3610	--	--	--	--	--	--	--
DEC.								
01...	912	--	--	0	--	--	--	--
15...	1900	3.0	84	0	5.8	5.0	--	3.8
JAN.								
04...	3140	--	--	--	--	--	--	--
15...	3350	2.9	84	0	7.4	4.0	--	1.0
FEB.								
01...	3470	--	--	--	--	--	--	--
16...	3560	3.0	84	0	6.1	4.0	--	1.4
MAR.								
01...	1990	--	--	--	--	--	--	--
15...	1620	3.4	88	0	5.4	4.0	--	1.7
APR.								
01...	3570	--	--	--	--	--	--	--
15...	1470	4.2	88	0	8.6	4.0	.20	.90
30...	1890	--	--	--	--	--	--	--
MAY								
17...	870	4.1	92	0	8.9	3.7	.07	.30
28...	28	--	--	--	--	--	--	--
JUNE								
15...	50	7.4	92	0	8.2	10	.07	.30
JULY								
01...	42	--	--	--	--	--	--	--
15...	42	5.9	96	0	8.9	9.6	.45	2.0
30...	18	--	--	--	--	--	--	--
AUG.								
19...	34	9.1	102	0	9.3	14	.11	.50
31...	1270	--	102	--	--	--	--	--
SEP.								
15...	40	7.9	104	0	7.7	12	.47	2.1

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
02...	--	--	--	--	--	--	198	--
15...	117	.16	8.21	84	10	.3	197	7.6
NOV.								
16...	--	--	--	--	--	--	161	--
DEC.								
01...	--	--	--	--	--	--	164	--
15...	101	.14	518	78	9	.1	166	7.6
JAN.								
04...	--	--	--	--	--	--	166	--
15...	103	.14	932	76	7	.1	166	7.7
FEB.								
01...	--	--	--	--	--	--	168	--
16...	96	.13	923	78	9	.1	169	7.7
MAR.								
01...	--	--	--	--	--	--	179	--
15...	99	.13	433	76	4	.2	172	7.5
APR.								
01...	--	--	--	--	--	--	174	7.8
15...	101	.14	401	78	6	--	172	8.1
30...	--	--	--	--	--	--	176	--
MAY								
17...	99	.13	233	80	5	--	174	7.9
28...	--	--	--	--	--	--	228	--
JUNE								
15...	111	.15	15.0	84	9	--	196	7.6
JULY								
01...	--	--	--	--	--	--	207	--
15...	114	.16	12.9	88	9	--	202	7.8
30...	--	--	--	--	--	--	222	--
AUG.								
19...	127	.17	11.7	92	8	--	222	7.8
31...	--	--	--	--	--	--	198	--
SEP.								
15...	127	.17	13.7	94	9	--	218	7.6

07228500 CANADIAN RIVER AT BRIDGEPORT, OKLA.

LOCATION.--Lat 35°34'00", long 98°22'45", in SE1/4SW1/4 sec. 28, T.13 N., R.1 W., Blaine County, at gaging station at Chicago, Rock Island and Pacific Railroad Company bridge, 1.0 mi (1.6 km) north of Bridgeport, 2.8 mi (4.5 km) upstream from Lumpmouth Creek, and at mile 267.1 (429.8 km).

DRAINAGE AREA.--25,229 sq mi (65,343.1 km²) of which 4,801 sq mi (12,434.6 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: Water years 1961 and 1964 (partial-record station), October 1969 to current year. Water temperatures: October 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
01-10	13	47	198	12	175	38	--	5.6
11-20	12	33	232	8	210	16	--	6.2
21-31	16	33	226	12	238	14	--	5.2
NOV.								
01-15	16	38	234	10	245	16	--	5.1
16-30	19	38	244	10	285	16	--	5.4
DEC.								
01-10	21	34	242	10	310	17	--	5.5
11-20	22	38	242	8	300	17	--	7.4
21-31	21	33	248	8	320	14	--	6.7
JAN.								
01-11	35	33	240	4	310	16	--	8.5
12-23	26	32	240	8	300	16	--	9.4
24-31	24	130	228	4	280	180	--	4.2
FEB.								
01-08	19	120	240	4	330	150	--	4.8
09-15	34	87	240	0	320	100	--	5.3
16-28	154	150	206	0	300	200	--	3.5
MAR.								
01-10	254	280	230	0	310	400	--	2.5
11-20	60	220	214	6	360	300	--	2.4
21-26	20	88	232	6	310	98	--	3.4
27-31	20	47	222	6	310	35	--	2.6
APR.								
01-10	20	39	220	12	310	22	--	5.8
11-20	22	36	228	10	340	20	--	5.0
21-30	19	37	216	8	330	19	1.3	5.8
MAY								
01-15	15	38	232	10	310	18	--	1.9
16-27	10	41	220	8	300	22	--	1.0
28-31	16	36	212	6	220	20	--	1.3
JUNE								
01-06	234	30	148	0	230	22	--	3.3
07-13	2060	17	118	0	66	18	--	3.1
14-23	71	110	222	0	210	120	--	1.8
24-30	71	42	202	0	240	28	--	1.4
JULY								
01-10	15	30	24	16	170	24	.11	.50
11-20	4.2	49	126	0	190	28	.85	2.0
21-31	8.1	44	126	0	160	26	.77	3.4
AUG.								
01-08	8.2	32	136	0	150	15	.84	3.7
09-10	16	20	138	2	47	10	1.6	7.1
11-13	47	24	176	0	100	12	.90	4.0
14-28	6.8	36	204	4	170	17	.56	2.5
29-31	373	13	130	0	130	7.2	1.4	6.3
SEP.								
01-14	6.2	37	206	0	160	18	.68	3.0
15-17	5.1	22	118	0	54	23	1.8	8.0
18-19	52	25	170	0	130	15	1.2	5.2
20-23	16	28	220	0	160	14	1.4	6.3
24-25	213	15	108	0	48	10	1.0	4.5
26-27	20	30	240	6	170	15	1.7	7.4
28-30	64	160	172	0	200	240	.72	3.2
WTD. AVG.	--	62	159	1	162	77	--	3.5
TIME WTD. AVG.	79	60	205	6	249	58	--	4.3
TOT. LOAD (TONS)	--	4880	12500	105	12700	5990	--	276

07228500 CANADIAN RIVER AT BRIDGEPORT, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,380 mg/l Mar. 1-10; minimum, 192 mg/l Sept. 24-25.
Hardness: 520 mg/l Feb. 1-8, Mar. 11-20; minimum, 120 mg/l Sept. 24-25.
Specific conductance: Maximum daily, 2,320 micromhos Mar. 5,7; minimum daily, 301 micromhos Sept. 24.
Water temperatures: Maximum, 36.0°C Sept. 12, 14; minimum, freezing point on Jan. 5-6, 31.

Period of record.--Dissolved solids: Maximum, 1,540 mg/l Apr. 3-16, 1970; minimum, 192 mg/l Sept. 24-25, 1971.
Hardness: Maximum, 710 mg/l May 1-10, 1970; minimum, 120 mg/l Sept. 24-25, 1971.
Specific conductance: Maximum daily, 2,340 micromhos Apr. 8, 1970; minimum daily, 301 micromhos Sept. 24, 1971.
Water temperatures: Maximum, 36.0°C Sept. 12, 14, 1970; minimum, freezing point on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-10	565	.77	19.8	336	154	1.1	804	8.6
11-20	594	.81	19.2	390	186	.7	805	8.6
21-31	633	.86	27.3	420	215	.7	848	8.6
NOV.								
01-15	659	.90	28.5	430	221	.7	963	8.5
16-30	715	.97	36.7	480	263	.7	1020	8.5
DEC.								
01-10	733	1.00	41.6	480	265	.7	977	8.5
11-20	738	1.00	43.8	480	268	.7	988	8.5
21-31	743	1.01	42.1	490	273	.6	991	8.5
JAN.								
01-11	727	.99	68.7	480	276	.7	980	8.4
12-23	721	.98	50.6	480	270	.6	969	8.5
24-31	934	1.27	60.5	440	246	2.7	1440	8.4
FEB.								
01-08	984	1.34	50.5	520	316	2.3	1460	8.4
09-15	880	1.20	80.8	500	303	1.7	1200	8.3
16-28	988	1.34	409	460	291	3.0	1540	8.3
MAR.								
01-10	1380	1.88	946	500	311	5.4	2220	8.3
11-20	1260	1.71	204	520	334	4.2	1950	8.4
21-26	880	1.20	47.5	490	290	1.7	1260	8.4
27-31	739	1.01	39.9	460	268	1.0	1010	8.4
APR.								
01-10	726	.99	39.2	460	260	.8	974	8.6
11-20	796	1.08	47.3	500	296	.7	1000	8.5
21-30	810	1.10	41.6	500	310	.7	1000	8.5
MAY								
01-15	731	.99	29.6	480	273	.8	971	8.5
16-27	722	.98	19.5	440	246	.9	949	8.5
28-31	600	.82	22.9	360	176	.8	802	8.4
JUNE								
01-06	555	.75	351	310	189	.7	732	8.2
07-13	254	.35	1410	150	53	.6	395	8.0
14-23	753	1.02	148	350	168	2.6	1140	8.3
24-30	641	.87	144	370	204	1.0	857	8.0
JULY								
01-10	349	.47	14.1	190	140	.9	492	9.3
11-20	470	.64	5.33	230	130	1.4	635	8.3
21-31	423	.58	9.25	210	110	1.3	582	7.9
AUG.								
01-08	382	.52	8.46	220	110	.9	579	8.0
09-10	224	.30	9.68	140	23	.7	358	8.4
11-13	320	.44	40.6	210	66	.7	498	8.3
14-28	444	.60	8.15	300	130	.9	688	8.4
29-31	322	.44	324	230	120	.8	499	8.0
SEP.								
01-14	474	.64	7.93	280	110	1.0	671	7.9
15-17	243	.33	3.35	140	43	.8	374	7.7
18-19	380	.52	53.4	240	100	.7	555	7.7
20-23	476	.65	20.6	310	130	.7	661	8.0
24-25	192	.26	110	120	31	.6	310	7.5
26-27	518	.70	30.0	340	130	.7	720	8.5
28-30	904	1.23	156	330	190	3.8	1400	7.4
WTD. AVG.	539	.74	--	278	145	1.4	814	8.1
TIME WTD. AVG.	685	.93	--	395	217	1.3	972	8.4
TOT. LOAD (TONS)	42100	--	--	--	--	--	--	--

07228500 CANADIAN RIVER AT BRIDGEPORT, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	900	855	949	989	1420	1880	983	988	734	550	604	617
2	901	852	939	992	1420	2280	964	954	726	545	514	619
3	892	887	949	989	1440	2280	939	957	732	546	520	656
4	792	887	949	967	1420	2280	970	978	727	539	517	656
5	803	887	1020	801	1420	2320	1000	973	726	642	626	689
6	780	876	1020	810	1410	2250	944	1000	726	633	625	668
7	781	873	1020	1080	1520	2320	984	1000	335	638	629	678
8	705	878	959	1090	1490	2230	967	967	319	---	627	656
9	704	880	957	965	1110	2180	967	965	305	---	353	684
10	777	910	957	1090	1090	2040	1050	920	480	664	355	695
11	778	907	981	957	1100	2040	983	920	483	652	497	707
12	799	907	978	959	1260	2060	952	1010	480	652	496	707
13	799	889	1000	944	1240	1930	1110	1000	324	652	501	585
14	821	893	944	944	1350	1930	994	1000	1350	666	---	706
15	835	861	962	967	1310	1950	997	1000	1360	697	673	356
16	823	856	978	964	1750	1940	941	1010	1350	694	668	367
17	801	959	980	939	1770	1940	989	1010	1050	695	673	374
18	812	951	983	932	1760	1870	952	960	1050	710	684	501
19	787	951	1000	997	1480	1860	1090	960	1050	576	690	597
20	851	989	1000	1000	1440	1860	1060	960	1050	577	692	600
21	850	956	970	992	1440	1340	962	962	1050	588	692	672
22	850	956	975	975	1100	1340	1010	906	1050	576	688	672
23	848	954	994	975	1100	1360	1000	894	1050	516	687	721
24	834	983	1000	1360	1100	1180	1040	931	874	522	681	301
25	852	954	991	1400	1100	1170	992	907	871	516	667	303
26	857	954	970	1390	1870	1150	997	929	868	516	664	731
27	859	956	978	1390	1870	1020	992	929	868	763	693	729
28	851	989	978	1470	1860	1020	1030	824	842	---	712	1330
29	855	949	986	1470	---	1020	989	822	840	748	417	1320
30	851	936	964	1520	---	994	989	824	840	598	417	1540
31	850	---	989	1500	---	973	---	730	---	603	625	---
MONTH	823	915	978	1090	1410	1740	992	940	817	617	596	681

07228500 CANADIAN RIVER AT BRIDGEPORT, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	7.0	17.0	11.0	5.0	5.0	24.0	24.0	22.0	25.0	24.0	32.0
2	25.0	6.0	15.0	11.0	5.5	5.0	21.0	25.0	21.0	24.0	27.0	29.0
3	27.0	10.0	15.0	9.0	7.0	9.0	23.0	27.0	20.0	26.0	28.0	30.0
4	24.0	12.0	14.0	4.0	4.0	12.0	16.0	20.0	21.0	27.0	28.0	31.0
5	22.0	6.0	9.0	8.0	5.0	12.0	15.0	16.0	23.0	26.0	25.0	28.0
6	27.0	10.0	8.0	0.0	3.0	10.0	18.0	15.0	22.0	28.0	24.0	31.0
7	25.0	17.0	11.0	2.0	3.0	12.0	20.0	16.0	19.0	27.0	26.0	30.0
8	11.0	16.0	10.0	1.0	5.0	11.0	23.0	17.0	17.0	---	24.0	29.0
9	9.0	21.0	11.0	2.0	4.0	10.0	18.0	14.0	17.0	27.0	28.0	31.0
10	13.0	24.0	12.0	---	4.0	15.0	25.0	15.0	20.0	28.0	27.0	33.0
11	15.0	12.0	7.0	5.0	6.0	16.0	24.0	13.0	22.0	29.0	28.0	35.0
12	22.0	15.0	6.0	5.0	10.0	18.0	23.0	19.0	21.0	28.0	27.0	36.0
13	25.0	7.0	7.0	4.0	11.0	20.0	19.0	20.0	20.0	29.0	26.0	35.0
14	25.0	5.0	15.0	10.0	10.0	12.0	21.0	21.0	22.0	28.0	---	36.0
15	24.0	10.0	5.0	6.0	11.5	17.0	23.0	20.0	25.0	28.0	25.0	35.0
16	22.0	12.0	9.0	9.0	12.0	18.0	22.0	19.0	24.0	29.0	27.0	33.0
17	26.5	14.0	10.0	8.0	13.0	17.0	21.0	19.0	26.0	29.0	26.0	15.5
18	15.0	18.0	11.0	9.0	14.5	9.0	20.0	21.0	25.0	28.0	24.0	14.0
19	18.0	9.0	4.0	10.0	14.0	9.0	25.0	22.0	26.0	27.0	25.0	17.0
20	20.0	16.0	8.0	10.0	7.0	11.0	26.0	18.0	26.0	27.0	26.0	19.0
21	21.5	14.0	12.0	11.5	4.0	19.0	27.0	19.0	25.0	28.0	27.0	13.0
22	15.0	5.0	13.0	11.0	5.0	13.0	28.0	20.0	27.0	29.0	28.0	12.0
23	26.0	4.0	5.0	8.0	6.0	14.0	18.0	21.0	28.0	26.0	25.0	16.0
24	23.0	3.0	---	11.0	7.0	12.0	20.0	18.0	26.0	27.0	25.0	18.0
25	21.5	4.5	6.0	10.0	9.0	13.0	31.0	18.5	25.0	27.0	33.0	23.0
26	23.0	10.0	5.0	8.0	6.0	15.0	30.0	19.0	25.0	24.0	35.0	29.0
27	20.0	11.0	6.0	7.0	7.0	22.0	28.0	20.0	26.0	24.0	34.0	30.0
28	22.0	9.0	8.0	9.0	7.0	18.0	17.0	21.0	27.0	---	35.0	25.0
29	25.0	16.0	8.0	13.0	---	20.0	15.0	20.0	25.0	26.5	35.0	28.0
30	24.0	17.0	9.0	12.0	---	22.0	22.0	18.0	26.0	26.0	34.0	22.0
31	8.0	---	6.0	0.0	---	23.0	---	20.0	---	25.0	30.5	---
MONTH	21.0	11.5	9.5	7.0	7.5	14.0	22.0	19.0	23.5	27.0	28.0	26.5

07229100 CANADIAN RIVER NEAR NOBLE, OKLA.

LOCATION.--Lat 35°04'55", long 97°22'52", in N1/2 sec.14, T.7 N., R.2 W., McClain County, at gaging station at Atchison, Topeka, and Santa Fe Railway Co. bridge, 3.6 mi (5.8 km) upstream from Chouteau Creek, 3.8 mi (6.1 km) south of Noble, and at mile 190.8 (307 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.								
06...	1230	17	136	0	40	17	4.0	209
15...	50	73	262	0	100	61	20	490
22...	40	--	--	--	--	--	--	--
30...	40	--	--	--	--	--	--	--
NOV.								
05...	3.0	--	--	--	--	--	--	--
19...	50	89	324	0	160	73	16	642
20...	41	--	--	--	--	--	--	--
DEC.								
05...	33	--	--	--	--	--	--	--
18...	38	78	332	0	170	54	1.0	618
30...	36	--	--	--	--	--	--	--
JAN.								
08...	73	--	--	--	--	--	--	--
15...	59	64	202	0	200	47	19	622
21...	41	--	--	--	--	--	--	--
FEB.								
02...	53	--	--	--	--	--	--	--
10...	37	120	292	0	220	110	26	774
25...	16	--	--	--	--	--	--	--
MAR.								
11...	129	240	288	2	300	350	3.0	1240
25...	38	--	--	--	--	--	--	--
APR.								
08...	11	120	318	0	170	86	32	670
19...	24	--	--	--	--	--	--	--
MAY								
05...	11	110	268	0	120	67	48	564
20...	6.0	--	--	--	--	--	--	--
JUNE								
04...	3910	--	--	--	--	--	--	--
15...	342	72	184	0	260	99	4.8	708
23...	128	--	--	--	--	--	--	--
JULY								
07...	31	64	176	0	140	51	.30	448
23...	9.5	--	--	--	--	--	--	--
AUG.								
03...	5.9	--	--	--	--	--	--	--
19...	15	58	154	0	100	34	22	364
SEP.								
07...	5.2	--	--	--	--	--	--	--
21...	56	--	--	--	--	--	--	--

07229100 CANADIAN RIVER NEAR NOBLE, OKLA.

DRAINAGE AREA.--25,911 sq mi (67,109.5 km^2), of which 4,801 sq mi (12,434.6 km^2) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
OCT.							
06...	.28	694	140	28	.6	355	7.5
15...	.67	66.2	250	35	2.0	819	7.8
22...	--	--	--	--	--	959	--
30...	--	--	--	--	--	900	--
NOV.							
05...	--	--	--	--	--	956	--
19...	.87	86.7	350	84	2.1	1030	7.8
20...	--	--	--	--	--	1030	--
DEC.							
05...	--	--	--	--	--	1010	--
18...	.84	63.4	350	78	1.8	970	7.4
30...	--	--	--	--	--	1020	--
JAN.							
08...	--	--	--	--	--	1120	--
15...	.85	99.0	380	149	1.4	959	7.8
21...	--	--	--	--	--	1000	--
FEB.							
02...	--	--	--	--	--	1660	--
10...	1.05	77.3	380	140	2.7	1230	7.4
25...	--	--	--	--	--	967	--
MAR.							
11...	1.69	432	520	280	4.6	2000	8.4
25...	--	--	--	--	--	1530	--
APR.							
08...	.92	20.1	320	59	2.9	1120	8.0
19...	--	--	--	--	--	1070	--
MAY							
05...	.77	16.8	240	20	3.1	940	8.0
20...	--	--	--	--	--	852	--
JUNE							
04...	--	--	--	--	--	668	--
15...	.96	650	390	240	1.6	1090	7.9
23...	--	--	--	--	--	684	--
JULY							
07...	.61	37.5	220	76	1.9	719	7.3
23...	--	--	--	--	--	684	--
AUG.							
03...	--	--	--	--	--	796	--
19...	.50	14.7	160	34	2.0	598	7.5
SEP.							
07...	--	--	--	--	--	776	--
21...	--	--	--	--	--	591	--

07229900 LAKE THUNDERBIRD NEAR NORMAN, OKLA.

LOCATION.--Lat 35°13'15", long 97°13'05", in NW1/4SE1/4 sec.29, T.9 N., R.1 E., Cleveland County, upstream face of dam at outlet gate, 0.2 mi (0.3 km) upstream from gaging station, 13.0 mi (20.9 km) east of Norman, and at mile 96.4 (155.1 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESER-VOIR STORAGE (AC-FT)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
06...	94750	15	182	0	9.0	23	--	.10
16...	101100	15	186	0	9.0	23	--	.00
DEC.								
03...	107300	15	186	0	10	23	--	.20
JAN.								
08...	106500	15	188	0	9.0	23	--	.10
FEB.								
02...	107800	15	194	0	8.0	23	--	.10
MAR.								
05...	111100	15	196	0	9.0	23	--	.20
31...	109400	16	198	0	8.6	24	.00	.00
APR.								
20...	108100	16	202	0	8.5	24	.00	.00
MAY								
20...	107000	16	200	0	10	25	.00	.00
JUNE								
15...	107300	16	204	0	9.6	24	.02	.10
JULY								
06...	107600	16	208	0	8.5	24	.00	.00
AUG.								
03...	105200	16	212	0	9.7	24	.00	.00
SEP.								
16...	101600	17	220	0	9.2	25	.00	.00

07229900 LAKE THUNDERBIRD NEAR NORMAN, OKLA.

DRAINAGE AREA.--256 sq mi (633.0 km²).

PERIOD OF RECORD.--Chemical analyses: October 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TUR-BID-ITY (MG/L)
OCT.								
06...	198	.27	150	1	.5	367	7.8	--
16...	206	.28	160	7	.5	372	7.9	--
DEC.								
03...	206	.28	160	7	.5	368	8.2	--
JAN.								
08...	212	.29	160	6	.5	372	8.2	--
FEB.								
02...	213	.29	160	1	.5	381	7.8	--
MAR.								
05...	212	.29	160	0	.5	384	7.9	--
31...	211	.29	170	8	.5	391	8.0	2
APR.								
28...	212	.29	170	4	.5	392	8.0	1
MAY								
20...	213	.29	170	6	.5	392	7.9	2
JUNE								
15...	216	.29	170	6	.5	391	8.0	2
JULY								
06...	218	.30	180	9	.5	404	8.0	2
AUG.								
03...	224	.30	180	6	.5	405	8.3	2
SEP.								
16...	231	.31	190	10	.5	421	7.9	3

07231000 LITTLE RIVER NEAR SASAKWA, OKLA.

LOCATION.--Lat 34°59'02", long 96°33'01", in NE1/4 sec.22, T.6 N., R.7 E., Seminole County, at gaging station at bridge on county road, 2.8 mi (4.5 km) northwest of Sasakwa, 8.7 mi (14.0 km) downstream from Salt Creek, and at mile 24.1 (38.8 km).

DRAINAGE AREA.--865 sq mi (2,240.4 km^2).

PERIOD OF RECORD.--Chemical analyses: September 1951 to current year.
Water temperatures: October 1955 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01-07	290	73	78	0	13	150	.10	371
08...	11000	9.6	50	0	2.4	16	1.4	950
09-10	12800	20	76	0	3.9	35	1.0	181
12-13	2210	41	98	0	7.1	80	.70	281
14-16	472	78	90	10	11	160	.80	373
17-22	191	140	150	0	17	290	1.4	670
23...	7840	36	72	0	16	69	2.3	205
24-25	2580	71	136	0	14	150	1.4	395
26-28	4850	45	112	0	9.1	91	.80	275
29-31	930	78	120	0	12	160	.20	406
NOV.								
01-09	167	270	184	0	29	530	.40	1260
10-25	108	300	220	0	35	620	1.4	1480
26-30	59	440	236	0	41	910	1.0	2030
DEC.								
01-09	50	450	236	0	41	940	.20	2030
10-18	45	490	274	0	45	1000	.00	2170
19-31	41	450	252	0	44	920	.60	2060
JAN.								
01-02	41	490	250	0	45	980	.80	1980
03...	960	46	98	0	18	78	2.6	256
04-07	262	130	170	2	23	260	2.2	639
08-09	98	220	208	0	28	450	1.2	1070
10-12	84	300	272	0	32	630	3.2	1440
13...	150	68	128	0	24	140	8.5	482
14...	110	200	210	4	29	430	11	1060
15-21	80	320	280	0	36	680	3.7	1560
22-31	60	440	230	0	44	860	.80	1860
FEB.								
01-05	101	420	132	0	51	840	1.0	1630
06-09	106	300	194	0	35	590	1.5	1280
10-21	76	440	188	0	43	900	1.0	1810
22-26	204	200	194	6	40	410	2.3	990
27-28	118	250	180	0	33	530	.30	1150
MAR.								
01-02	90	310	128	0	44	650	1.4	1360
03-16	57	420	158	0	46	880	.80	1720
17-25	34	460	204	0	50	980	.80	1900
26-31	34	520	234	0	54	1100	.60	2150
APR.								
01-10	23	540	212	0	72	1100	1.0	2340
11-18	28	540	200	0	64	1100	.90	2420
19...	85	740	112	0	73	1500	1.5	3110
20...	613	410	168	0	31	800	6.0	1780
21-22	516	130	190	0	28	260	.90	669
23...	625	66	130	0	26	130	6.9	423
24...	488	160	170	0	26	340	3.6	824
25-30	227	130	188	0	28	270	1.4	651
MAY								
01-03	93	200	172	0	30	400	.60	870
04-08	82	280	196	0	39	560	.20	1150
09-10	226	210	180	0	28	400	1.6	926
11...	605	82	126	0	36	150	.30	412
12-14	151	130	188	4	28	250	.80	689
15-17	61	190	264	0	32	390	1.0	936
18-20	32	290	294	0	40	570	.80	1190
21-25	46	390	238	0	40	800	2.0	1620
26...	42	220	180	4	24	420	3.3	932
27-30	489	110	152	0	21	218	1.5	525
JUNE								
01...	509	58	116	4	17	110	.10	330
02...	405	140	88	8	19	290	.80	668
03-06	1000	81	120	0	18	150	.90	407
07-13	495	150	198	0	20	310	1.6	763
14-15	1310	66	118	0	11	120	2.8	363
16-17	326	120	162	4	18	230	1.1	566
18-19	138	180	184	0	33	360	1.1	825
21-24	75	250	240	0	29	510	2.0	1160
25-30	21	390	208	0	35	800	1.0	1760
JULY								
01...	2880	300	148	2	21	620	4.3	1300
02...	1070	46	78	2	8.7	88	.20	239
03-07	141	160	182	0	19	340	1.3	778
08-12	25	300	284	0	28	610	1.2	1350
13-20	7.2	460	300	0	37	910	1.0	1960
21...	3.3	710	94	0	49	1500	.80	2740
22-23	3.8	960	232	0	55	2000	.80	4010
24-30	10	720	120	0	40	1500	.70	2770
31...	18	460	156	2	29	980	1.0	1960
AUG.								
01-11	13	530	222	0	26	1100	.10	2200

07231000 LITTLE RIVER NEAR SASAKWA, OKLA.

EXTREMES. Current year.--Dissolved solids: Maximum, 4,010 mg/l July 22-23; minimum, 141 mg/l Oct. 9-10.
Hardness: Maximum, 1,000 mg/l July 22-23; minimum, 48 mg/l Oct. 8.
Specific conductance: Maximum daily, 6,530 micromhos July 23; minimum daily, 142 micromhos Oct. 8.
Water temperatures: Maximum, 34.0 °C Aug. 23; minimum, 0.5 °C Feb. 8, 10.

Period of record.--Dissolved solids (1955-57, 1961-71): Maximum, 129,000 mg/l Oct. 30-31, 1956; minimum, 106 mg/l Sept. 24-27, 1970.
Hardness (1955-57, 1961-67, 1969-71): Maximum, 24,000 mg/l Oct. 30-31, Nov. 1-2, 1956; minimum, 48 mg/l Oct. 8, 1970.
Specific conductance (1955-64, 66-71): Maximum daily, 138,000 micromhos Oct. 31, 1956; minimum daily, 142 micromhos Oct. 8, 1970.
Water temperatures (1955-64, 1966-71): Maximum, 38.0 °C July 20,27,28, 30, 1961; freezing point on several days during winter period in 1963 and 1970.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-07	.50	298	140	63	2.7	655	9.0
08...	1.29	28200	48	7	.6	142	7.8
09-10	.19	4870	72	10	1.0	246	8.1
12-13	.33	1440	120	40	1.6	440	8.2
14-16	.51	475	160	69	2.5	696	8.0
17-22	.91	346	250	114	3.9	1200	8.5
23...	.20	4340	98	39	1.6	350	7.9
24-25	.56	2750	180	68	2.3	706	8.3
26-28	.37	3600	140	48	1.7	491	8.2
29-31	.55	1030	180	68	2.4	731	8.0
NOV.							
01-09	1.71	56.8	370	219	6.1	1990	8.3
10-25	1.96	420	440	260	6.2	2340	8.2
26-30	2.76	32.3	580	386	8.0	3250	8.0
DEC.							
01-09	2.76	274	580	386	8.1	3330	8.0
10-18	2.95	268	640	415	8.4	3590	8.0
19-31	2.80	228	590	383	8.1	3300	7.9
JAN.							
01-02	2.69	219	600	395	8.7	3440	7.9
03...	.35	664	120	40	1.8	450	8.1
04-07	.87	452	260	111	3.5	1120	8.4
08-09	1.46	283	360	189	5.0	1760	8.3
10-12	1.96	334	500	277	5.8	2370	8.3
13...	.61	183	180	75	2.2	698	8.2
14...	1.44	315	370	191	4.5	1720	8.4
15-21	2.12	371	520	290	6.1	2540	8.2
22-31	2.53	301	550	361	8.2	3030	8.1
FEB.							
01-05	2.22	445	460	352	8.5	2940	8.3
06-09	1.74	366	410	251	6.4	2220	8.3
10-21	2.46	371	530	376	8.3	3150	8.2
22-26	1.35	759	350	181	4.7	1670	8.5
27-28	1.56	366	380	232	5.6	2030	8.3
MAR.							
01-02	1.85	330	390	285	6.8	2350	8.3
03-16	2.34	265	500	370	8.2	3080	8.2
17-25	2.58	174	580	413	8.3	3390	8.0
26-31	2.92	197	660	468	8.8	3790	7.9
APR.							
01-10	3.18	145	620	446	9.4	3720	8.0
11-18	3.29	183	600	436	9.6	3800	8.1
19...	4.23	714	710	618	12	4860	8.1
20...	2.37	2080	430	299	8.6	2810	8.3
21-22	.88	906	270	108	3.4	1100	8.1
23...	.58	714	170	57	2.2	700	8.3
24...	1.12	997	280	161	4.2	1320	8.3
25-30	.89	399	270	116	3.4	1130	8.3
MAY							
01-03	1.19	220	310	169	4.9	1580	8.3
04-08	1.56	255	390	229	6.2	2070	8.3
09-10	1.26	565	310	162	5.2	1590	8.3
11...	.56	673	160	57	2.8	712	8.2
12-14	.88	265	270	109	3.6	1150	8.4
15-17	1.27	154	380	163	4.2	1670	8.3
18-20	1.62	183	400	233	6.3	2140	8.3
21-25	2.20	201	540	385	7.3	2830	8.2
26...	1.27	186	290	136	5.6	1620	8.4
27-30	.71	693	210	85	3.3	939	8.3
JUNE							
01...	.45	525	160	58	2.0	577	8.5
02...	.90	726	280	118	4.3	1160	8.8
03-06	.55	1980	160	55	2.8	727	8.3
07-13	1.04	1020	290	128	3.8	1320	8.3
14-15	.49	1280	140	43	2.4	621	8.3
16-17	.77	498	240	100	3.4	1030	8.4
18-19	1.12	307	330	166	4.3	1480	8.5
21-24	1.58	235	480	283	5.4	2040	8.3
25-30	2.39	99.8	570	334	7.1	2950	8.3
JULY							
01...	1.77	8710	370	245	6.8	2200	8.4
02...	.33	690	98	31	2.0	429	8.4
03-07	1.06	296	280	131	4.2	1370	8.1
08-12	1.88	91.1	440	280	6.2	2300	8.2
13-20	2.67	38.1	600	354	8.2	3280	8.0
21...	3.73	24.4	670	593	12	4670	8.1
22-23	5.45	41.1	1000	818	13	6380	8.0
24-30	3.77	74.8	680	582	12	4700	8.2
31...	2.67	95.3	520	389	8.8	3310	8.4
AUG.							
01-11	3.10	80.0	610	428	9.3	3720	8.2

07231000 LITTLE RIVER NEAR SASAKWA, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
AUG.								
12-14	189	250	142	0	20	530	.30	1150
15-20	89	140	140	0	18	280	1.4	648
21-23	16	190	196	0	21	370	1.2	852
24-27	5.0	270	250	0	25	520	1.4	1170
28-31	2.3	320	300	0	23	630	1.3	1450
SEP.								
01-10	2.3	370	244	0	24	720	1.6	1600
11-12	4.8	800	198	0	36	1600	1.2	3170
13-17	1.2	620	244	0	28	1200	.80	2520
18-25	11	480	212	0	25	1000	1.2	2060
26-28	51	380	158	0	22	760	.90	1610
29-30	34	110	142	0	18	190	1.4	479
WTD. AVG.	--	97	117	1	15	196	1.3	560
TIME WTD. AVG.	335	339	199	1	34	692	1.1	1490
TOT. LOAD (TONS)	--	31900	38300	251	4800	64000	397	183000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	554	---	3500	3490	3220	2110	3810	1390	577	2210	3070	2550
2	681	1780	3410	3520	3200	2580	3650	1630	1160	428	3110	2580
3	794	---	3390	450	---	3110	3720	1780	752	1130	3440	2620
4	---	1930	3420	1150	3130	3110	3730	1860	608	1230	3740	2650
5	894	1900	3420	1040	2790	3100	3580	---	825	1370	4030	2820
6	563	2110	3430	---	2230	3120	3660	2310	723	1480	4060	---
7	848	2180	3390	1220	2330	3100	3640	2400	950	1750	4310	---
8	142	---	3400	1710	2300	3180	3890	1860	---	2020	3020	2840
9	234	2350	3430	1980	2380	3230	3930	1710	---	2190	3290	2840
10	249	2510	3600	2330	2720	3330	3830	1480	1170	2390	4530	2510
11	---	2510	3830	2350	3130	---	3890	697	1390	2600	4560	5280
12	378	2810	3690	2580	3220	---	3930	1120	1550	2670	---	5280
13	892	2230	3530	698	3400	---	4130	1050	1570	2910	2270	4470
14	621	2250	3440	1720	3030	---	4270	1240	798	3180	1590	4220
15	734	---	---	2460	3250	---	4230	1430	446	3200	1140	4090
16	812	2420	---	2240	3340	---	4140	1690	859	3290	1100	3980
17	936	1760	---	2460	3290	3410	4030	1860	1190	3320	1480	3900
18	---	2080	3960	2610	3320	3370	4280	2030	1410	---	1080	---
19	1110	2390	3470	2720	3370	3460	4060	2360	1600	3590	1050	---
20	1210	2490	3460	2810	3650	3760	2780	2210	---	3640	1120	3550
21	1350	2560	3500	2720	3680	3210	1460	2760	1990	4880	1310	---
22	1400	---	3360	3090	2360	3270	938	2640	1830	6390	1500	---
23	350	---	3560	3120	1760	3420	695	2540	2020	6530	1750	3350
24	706	---	3580	3010	1130	3460	1340	3160	2310	5060	1880	3450
25	---	2790	3260	3130	1360	3460	843	3180	2500	5090	1990	3090
26	326	3230	3290	3190	1760	3700	1150	1620	2670	4070	2080	2320
27	565	3530	3260	3170	2130	3870	1210	1130	2870	4580	2220	3580
28	576	3290	3550	3080	2110	3750	1140	829	3150	5380	2340	2130
29	665	3420	3360	3080	---	3970	1330	825	3220	4720	2420	852
30	858	3510	3360	3260	---	3900	1330	964	3310	5260	2480	879
31	---	---	3470	3420	---	3730	---	---	---	3330	2560	---
MONTH	693	---	3480	2460	2730	3350	2980	1780	1610	3330	2480	3160

07231000 LITTLE RIVER NEAR SASAKWA, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
AUG.							
12-14	1.56	587	350	234	5.8	1940	8.0
15-20	.88	12.6	210	95	4.2	1180	8.0
21-23	1.16	36.8	290	129	4.9	1510	8.0
24-27	1.59	15.8	390	185	6.0	2030	8.0
28-31	1.97	9.00	460	214	6.5	2440	8.0
SEP.							
01-10	2.18	9.94	440	240	7.7	2670	8.2
11-12	4.31	41.1	760	598	13	5270	8.2
13-17	3.43	8.16	630	430	11	4140	8.1
18-25	2.80	61.2	540	366	9.0	3350	8.1
26-28	2.19	222	420	290	8.1	2680	8.0
29-30	.65	44.0	170	54	3.7	874	7.9
WTD. AVG.	.77	--	179	82	2.6	827	8.2
TIME WTD. AVG.	2.03	--	444	280	6.7	2490	8.2
TOT. LOAD (TONS)	--	--	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	---	16.0	9.0	3.0	7.5	14.0	16.0	21.0	24.0	22.0	24.5
2	20.0	14.0	11.0	7.0	3.0	---	12.0	18.5	24.5	24.5	22.0	25.0
3	20.5	---	16.0	12.0	3.0	8.5	12.5	18.0	22.0	26.5	24.0	25.0
4	---	12.0	11.5	5.0	8.0	8.0	10.0	15.0	24.0	28.0	23.0	26.0
5	18.5	10.5	12.5	1.0	3.5	9.0	10.0	---	25.5	31.5	25.0	24.0
6	19.5	11.5	7.5	---	4.0	9.0	10.5	19.5	22.0	29.0	24.5	---
7	19.0	15.5	7.5	1.5	1.0	9.0	11.0	22.0	25.0	29.0	23.0	---
8	15.0	---	8.0	1.5	0.5	9.0	12.5	20.0	---	31.0	23.5	25.0
9	13.0	13.0	10.0	2.0	1.0	10.0	15.0	18.0	---	29.0	24.0	25.0
10	13.5	13.0	12.5	2.0	0.5	12.0	17.0	19.0	25.0	29.0	25.0	24.0
11	---	---	8.0	5.0	4.0	---	16.5	18.0	25.5	28.5	26.5	22.0
12	14.5	---	4.5	3.0	5.0	---	18.0	18.0	27.0	28.0	---	22.0
13	15.5	---	4.0	2.0	3.0	---	18.5	19.5	27.0	27.0	25.0	22.0
14	15.5	---	4.0	6.0	4.5	---	15.0	17.0	25.5	27.0	24.0	22.0
15	14.5	---	---	4.0	5.0	---	16.5	17.0	23.0	27.0	23.5	23.0
16	13.0	---	---	3.5	8.0	---	18.0	21.0	27.0	28.5	24.0	22.0
17	13.0	9.0	---	4.0	10.0	13.0	18.0	21.0	26.5	28.0	28.0	20.5
18	---	8.0	5.0	---	12.0	13.5	17.5	21.0	27.0	27.0	29.5	---
19	15.0	12.0	6.0	---	11.0	9.0	18.0	19.0	28.0	28.0	31.0	---
20	15.0	12.0	6.0	3.5	8.0	9.0	17.5	26.0	27.0	24.5	25.0	27.5
21	16.0	12.0	6.5	6.0	9.0	12.5	18.0	22.0	26.0	23.0	26.0	---
22	17.5	---	8.0	6.0	3.0	17.0	18.0	22.0	26.0	26.0	28.0	---
23	16.0	---	5.5	5.0	3.0	9.5	17.5	22.0	27.5	24.0	34.0	21.0
24	16.5	---	4.0	5.5	4.0	8.5	16.0	18.5	28.0	24.5	27.5	22.0
25	---	14.5	3.0	7.0	8.0	7.0	17.5	22.0	27.0	25.0	25.0	20.0
26	17.0	12.0	2.0	6.0	11.0	9.0	22.0	20.0	27.5	27.0	25.0	25.0
27	17.5	14.0	3.0	4.0	9.5	9.0	20.5	22.0	28.0	25.0	26.0	23.0
28	13.5	10.5	3.5	3.5	9.0	11.0	18.0	20.0	27.5	24.5	25.5	24.0
29	13.5	10.5	3.5	5.0	---	12.0	16.5	19.0	26.0	25.5	25.5	23.5
30	13.0	11.0	7.0	6.5	---	12.0	15.5	21.0	26.0	28.0	22.5	24.0
31	---	---	7.0	5.0	---	13.5	---	---	---	21.0	22.0	---
MONTH	16.0	---	7.5	4.5	5.5	---	16.0	19.5	26.0	26.5	25.5	23.5

07231500 CANADIAN RIVER AT CALVIN, OKLA.

LOCATION.--Lat 34°58'32", long 96°14'24", in NE1/4SW1/4 sec.22, T.6 N., R.10 E., Hughes County, at gaging station at bridge on U.S. Highway 75, 0.5 mi (0.8 km) northeast of Calvin, 2.5 mi (4.0 km) upstream from Shawnee Creek, 8.5 mi (13.7 km) downstream from Little River, and at mile 93.9 (151.1 km).

DRAINAGE AREA.--27,952 sq mi (72,395.7 km²), of which 4,801 sq mi (12,434.6 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: July 1965 to current year.
Water temperatures: July 1965 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.									
01-07	653	70	166	4	39	110	.18	.80	.14
08-09	61200	15	86	6	7.0	23	.11	.50	.00
10-12	8850	26	100	2	12	42	.02	.10	.00
13-22	1400	79	168	4	21	140	.29	1.3	.13
23...	26500	21	94	0	7.0	33	.00	.00	.03
24-27	9480	34	118	0	17	58	.25	1.1	.20
28-31	2500	65	134	0	19	120	.00	.00	.05
NOV.									
01-10	746	140	210	8	31	240	.27	1.2	.05
11-20	551	190	224	4	41	330	.32	1.4	.13
21-30	329	190	212	2	47	360	.14	.60	.02
DEC.									
01-10	245	230	200	0	46	420	.09	.40	.00
11-20	259	230	308	0	47	420	.11	.50	.22
21-31	288	230	272	0	50	410	.09	.40	.21
JAN.									
01-03	693	220	176	0	53	410	.00	.00	.00
04-05	1610	93	88	10	27	170	.00	.00	.00
06-13	576	130	212	12	47	240	.16	.70	.00
14...	1580	79	130	6	36	140	.09	.40	.00
15-19	586	130	192	12	43	220	.27	1.2	.01
20-31	305	190	170	4	59	350	.00	.00	.00
FEB.									
01-05	312	210	148	8	75	360	2.3	10	.00
06...	495	260	124	4	69	500	.09	.40	.01
07-20	271	200	180	4	64	370	.11	.50	.00
21-23	1020	180	78	6	56	330	.14	.60	.00
24-28	671	120	196	20	57	210	.29	1.3	.09
MAR.									
01-04	709	140	212	8	98	220	.59	2.6	.17
05-10	540	210	204	4	170	330	.32	1.4	.14
11-20	296	240	178	4	140	380	.36	1.6	.01
21-31	188	260	188	4	110	430	.05	.20	.03
APR.									
01-10	102	280	174	2	74	500	.07	.30	.00
11-20	169	280	214	4	61	500	.05	.20	.00
21-22	1300	200	116	0	37	380	.00	.00	.01
23-27	1790	77	158	2	28	140	.27	1.2	.02
28-30	419	120	196	0	33	220	.02	.10	.02
MAY									
01-06	276	130	200	0	39	250	.09	.40	.02
07...	1130	70	76	1	19	140	.07	.30	.00
08-11	631	100	112	12	19	210	.20	.90	.00
12-13	1000	74	126	4	22	130	.38	1.7	.06
14-18	289	110	160	0	29	200	.07	.30	.00
19-23	279	180	210	2	36	330	.05	.20	.00
24-25	1460	88	64	4	22	160	.09	.40	.00
26-27	1680	51	48	16	17	82	.07	.30	.00
28-31	1750	71	88	8	19	130	.02	.10	.00
JUNE									
01-03	5730	70	110	14	23	130	.07	.30	.02
04...	20000	29	148	0	15	43	.54	2.4	.25
05-08	4450	49	104	10	37	79	.05	.20	.02
09-11	3830	42	140	8	35	62	.32	1.4	.09
12-17	3020	55	122	12	40	90	.07	.30	.07
18-21	750	88	140	6	76	150	.05	.20	.02
22-30	296	140	150	0	100	210	.02	.10	.01
JULY									
01-02	3380	33	62	12	12	52	.02	.10	.00
03-07	904	84	152	8	35	140	.41	1.8	.14
08-13	119	150	212	0	56	270	.63	2.8	.24
14-23	32	230	236	0	40	460	.75	3.3	.14
24...	266	100	122	0	25	200	.63	2.8	.26
25-29	125	170	178	0	35	320	.09	.40	.08
30-31	196	230	118	0	27	460	.02	.10	.06
AUG.									
01-02	83	200	108	0	29	380	.02	.10	.00
03-06	66	290	146	2	27	600	.02	.10	.00
07-10	496	100	60	10	19	180	.02	.10	.00
11-13	158	220	86	6	22	410	.02	.10	.00
14-16	1160	110	140	8	22	200	.09	.40	.04
17-24	144	180	168	4	25	330	.05	.20	.00
25-31	60	190	176	2	43	340	.02	.10	.00
SEP.									
01-05	65	220	136	0	35	420	.32	1.4	.01
06...	60	110	114	0	19	200	.05	.20	.00
07...	190	85	108	0	19	160	.07	.30	.06
08...	56	140	120	4	22	260	.05	.20	.01
09-20	38	260	144	0	33	500	.07	.30	.01
21-26	133	180	128	10	33	320	.14	.60	.02
27-28	481	77	168	0	36	120	1.2	5.1	.44

07231500 CANADIAN RIVER AT CALVIN, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,180 mg/1 Aug. 3-6; minimum, 144 mg/1 Oct. 8-9.
Hardness: Maximum, 410 mg/1 Dec. 11-20; minimum, 82 mg/1 July 1-2.
Specific conductance: Maximum daily, 2,370 micromhos Aug. 5; minimum daily, 214 micromhos July 1.
Water temperatures: Maximum, 27.5 °C July 9-10; minimum, freezing point on Feb. 8-10, 22, Mar. 3.

Period of record.--Dissolved solids: Maximum. 7,280 mg/1 Nov. 17, 1966; minimum, 144 mg/1 Oct. 8-9, 1970.
Hardness (1965-67, 1969-71): Maximum, 1,800 mg/1 Nov. 17, 1966; minimum, 82 mg/1 July 1-2, 1971.
Specific conductance: Maximum daily, 11,400 micromhos Nov. 17, 1966; minimum daily, 214 micromhos July 1, 1971.
Water temperatures: Maximum, 32.0 °C July 8, 1965; minimum, freezing point on many days during the winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-07	413	.56	728	190	47	2.2	720	8.5
08-09	144	.20	23800	84	3	.7	246	8.9
10-12	184	.25	8400	96	11	1.2	323	8.5
13-22	438	.60	1660	200	56	2.4	704	8.5
23...	159	.22	11400	84	7	1.0	270	8.3
24-27	238	.32	6090	120	23	1.4	410	8.3
28-31	359	.49	2420	160	50	2.2	639	8.2
NOV.								
01-10	667	.91	1340	270	84	3.7	1190	8.5
11-20	796	1.08	1180	310	120	4.7	1450	8.4
21-30	866	1.18	769	310	133	4.7	1580	8.4
DEC.								
01-10	984	1.34	651	320	156	5.6	1740	8.2
11-20	1070	1.46	748	410	157	4.9	1840	8.3
21-31	1020	1.39	683	380	157	5.1	1800	8.1
JAN.								
01-03	986	1.34	1850	300	160	5.6	1660	8.3
04-05	425	.58	1850	150	61	3.3	768	8.9
06-13	707	.96	1100	280	86	3.4	1160	8.7
14...	435	.59	1860	180	63	2.6	770	8.5
15-19	658	.89	1040	270	92	3.4	1130	8.6
20-31	857	1.17	706	280	130	4.9	1470	8.4
FEB.								
01-05	913	1.24	769	280	145	5.5	1520	8.6
06...	1080	1.47	1440	300	192	6.5	1840	8.4
07-20	962	1.31	704	300	146	5.0	1560	8.5
21-23	782	1.06	2150	210	136	5.4	1310	8.8
24-28	652	.89	1180	280	86	3.1	1070	8.8
MAR.								
01-04	700	.95	1340	310	123	3.5	1220	8.6
05-10	986	1.34	1440	380	206	4.7	1670	8.4
11-20	1000	1.36	799	350	197	5.6	1780	8.5
21-31	1030	1.40	523	340	179	6.1	1850	8.4
APR.								
01-10	1090	1.48	300	340	194	6.6	1940	8.4
11-20	1110	1.51	506	370	188	6.3	1990	8.5
21-22	792	1.08	2780	230	135	5.7	1480	8.0
23-27	414	.56	2000	180	47	2.5	754	8.4
28-30	586	.80	663	240	79	3.4	1060	8.2
MAY								
01-06	622	.85	463	260	96	3.5	1160	8.2
07...	339	.46	1030	140	76	2.6	628	9.0
08-11	506	.69	862	200	88	3.1	932	8.9
12-13	390	.53	1050	150	40	2.6	705	8.5
14-18	510	.69	398	200	69	3.4	932	8.0
19-23	766	1.04	577	290	114	4.6	1420	8.4
24-25	375	.51	1480	110	51	3.7	689	8.5
26-27	241	.33	1090	86	20	2.4	425	9.3
28-31	342	.47	1620	130	44	2.7	608	8.9
JUNE								
01-03	391	.53	6050	160	46	2.4	669	8.9
04...	229	.31	12400	130	9	1.1	401	8.3
05-08	293	.40	3520	140	38	1.8	514	8.9
09-11	292	.40	3020	160	32	1.4	502	8.8
12-17	338	.46	2760	160	40	1.9	589	8.9
18-21	493	.67	998	220	95	2.6	872	8.6
22-30	671	.91	536	240	117	3.9	1160	8.2
JULY								
01-02	183	.25	1670	82	11	1.6	316	9.3
03-07	435	.59	592	190	52	2.7	775	8.7
08-13	718	.98	231	300	130	3.8	1280	8.1
14-23	1060	1.44	91.6	390	196	5.1	1860	8.3
24...	484	.66	348	180	80	3.2	878	8.3
25-29	728	.99	246	260	114	4.6	1360	8.2
30-31	908	1.23	480	270	173	6.1	1680	7.8
AUG.								
01-02	798	1.09	179	220	130	5.9	1440	8.0
03-06	1180	1.60	210	360	240	6.7	2140	8.4
07-10	402	.55	538	120	54	4.0	771	9.2
11-13	844	1.15	360	220	140	6.5	1510	8.8
14-16	500	.68	1570	190	62	3.5	910	8.7
17-24	752	1.02	292	260	120	4.9	1350	8.6
25-31	798	1.09	129	280	130	4.9	1450	8.4
SEP.								
01-05	876	1.19	154	270	158	5.8	1590	8.3
06...	490	.67	79.8	160	66	3.8	885	8.3
07...	402	.55	206	140	51	3.1	722	8.3
08...	580	.79	87.7	190	85	4.4	1040	8.6
09-20	1050	1.43	96.4	300	182	6.5	1860	8.3
21-26	718	.98	258	230	108	5.2	1270	8.7
27-28	422	.57	502	190	52	2.4	757	8.1

07231500 CANADIAN RIVER AT CALVIN, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
SEP. 29-30	241	140	140	8	48	240	.97	4.3	.71
WTD. AVG.	--	64	122	5	25	111	.16	.69	.06
TIME WTD. AVG.	1260	167	173	4	50	300	.20	.89	.06
TOT. LOAD (TONS)	--	79200	152000	6410	30500	137000	193	858	68

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	584	937	1700	1720	1580	1250	1980	1140	784	214	1490	1480
2	619	1010	1860	1770	1570	1260	2070	1190	722	394	1540	1600
3	669	1150	1750	1690	1580	1200	2030	1200	634	518	2260	1710
4	789	1190	1790	829	1560	1200	2140	1280	401	962	1860	1830
5	819	1260	1820	897	1690	1580	2020	1380	480	869	2370	1900
6	824	1280	1860	1260	2010	1670	2000	1320	536	774	2290	919
7	726	---	1740	1020	1580	1660	2020	628	607	765	864	712
8	233	---	1880	1040	1490	1740	2030	821	655	---	860	1110
9	257	1330	1840	1150	1580	1720	2170	978	393	1120	808	1620
10	290	1280	1790	1310	1510	1700	2090	976	589	1200	807	1760
11	305	1540	1760	1320	1570	1800	2200	989	522	1290	1340	1850
12	384	1590	1900	1270	1580	1810	2120	636	579	1340	1640	1840
13	539	1380	1860	1330	1720	1850	2140	774	676	1460	1780	1810
14	606	1480	1860	770	1570	1780	2140	823	---	1590	910	1950
15	738	1700	1890	911	1630	1840	2090	866	---	1690	---	2080
16	733	1300	1870	954	1670	1780	2130	1030	584	1780	---	2170
17	804	1380	1910	1320	1700	---	2110	1150	654	1890	1320	2350
18	832	---	1850	1270	1620	1810	2040	1270	808	1650	1360	1920
19	878	1370	1840	1330	1760	1890	1920	1400	966	1950	1360	1900
20	907	1380	1860	1420	1860	1980	1950	1460	1130	2080	1300	2140
21	892	1400	1830	1430	1370	1970	1710	1500	733	2180	1370	1590
22	922	1500	1940	1490	1630	1980	1460	1580	1180	2210	1510	1540
23	270	1590	1860	1460	1450	---	722	1640	1310	2110	1410	1340
24	477	1470	1870	1500	1180	1970	662	930	1320	878	1380	1480
25	326	1570	1880	1500	958	1880	870	651	1280	1300	1630	1220
26	407	1680	1860	1650	1030	1840	749	522	1270	1360	1670	1290
27	409	1740	1830	1600	1120	1810	820	496	1180	1540	1680	870
28	550	1640	1900	1730	1200	2020	1130	626	1250	1380	1280	618
29	618	1720	1880	1650	---	1790	1120	704	1300	1380	1350	1080
30	786	1700	1820	1740	---	2070	1130	725	1290	1920	1460	1130
31	782	---	1770	1710	---	2160	---	716	---	1580	1350	---
MONTH	610	1430	1840	1360	1530	1760	1730	1010	850	1380	1460	1560

07231500 CANADIAN RIVER AT CALVIN, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
SEP. 29-30	637	.87	414	230	102	4.0	1120	8.6
WTD. AVG.	347	.47	--	150	41	2.0	607	8.6
TIME WTD. AVG.	747	1.02	--	267	119	4.3	1320	8.5
TOT. LOAD (TONS)	431000	--	--	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	11.0	13.5	4.5	2.0	6.5	13.0	15.0	20.0	22.0	20.5	21.0
2	20.0	9.0	12.0	7.0	2.5	5.0	8.5	16.0	23.0	22.5	20.5	23.5
3	19.0	8.0	15.0	12.0	3.5	0.0	12.0	15.0	21.0	24.0	21.0	23.0
4	18.0	7.5	5.0	4.0	11.0	2.5	11.0	14.0	20.5	25.0	20.5	23.0
5	17.5	7.5	10.0	2.0	2.0	5.0	8.0	18.0	23.0	26.5	21.0	24.0
6	20.0	10.0	6.0	0.5	3.0	5.0	7.0	21.0	19.0	27.5	23.0	23.0
7	20.5	8.0	7.0	0.5	1.0	5.0	7.0	17.0	23.5	27.5	17.0	23.0
8	18.5	10.0	8.0	1.0	0.0	6.0	9.0	16.0	24.0	27.0	18.0	24.0
9	11.0	10.0	12.0	1.5	0.0	7.5	17.0	15.0	20.0	27.0	24.0	24.0
10	12.0	9.5	15.0	3.0	0.0	7.0	17.0	16.0	24.0	27.0	25.0	24.0
11	13.0	9.5	5.0	4.0	3.0	9.0	18.0	17.0	24.0	26.0	25.0	23.0
12	14.0	8.5	2.0	3.5	3.0	10.5	18.0	16.0	25.5	25.0	23.5	19.0
13	13.5	8.5	3.0	3.0	2.5	10.5	16.0	13.0	25.0	25.0	22.0	17.0
14	14.0	8.5	3.5	6.0	3.5	15.0	11.0	15.0	---	26.0	23.5	19.0
15	12.0	4.0	5.0	2.0	6.0	10.0	14.0	15.5	---	25.5	---	20.0
16	10.0	4.5	6.5	3.0	9.5	10.5	14.5	17.0	20.0	26.0	---	19.5
17	12.5	7.0	5.0	4.0	9.0	---	17.0	19.0	25.0	25.5	21.0	19.0
18	12.5	9.0	6.0	6.0	9.5	11.0	16.0	19.0	27.0	24.0	22.5	16.0
19	14.0	10.0	10.0	1.0	17.0	9.0	17.0	15.5	25.5	25.5	23.0	13.5
20	14.0	8.0	10.0	1.0	16.0	16.0	17.0	15.5	25.0	22.0	23.0	14.0
21	14.0	8.0	12.0	5.0	16.0	16.0	15.0	17.0	24.0	21.0	25.0	14.5
22	17.0	11.0	13.0	7.0	0.0	14.0	17.0	19.0	25.0	25.0	25.0	16.0
23	16.0	3.0	6.0	4.0	2.0	---	15.5	20.5	26.0	22.5	25.0	16.5
24	17.0	1.5	2.0	8.0	3.0	7.0	14.0	17.5	26.5	22.5	23.5	17.5
25	18.0	1.5	2.0	7.0	9.0	6.5	16.5	17.0	26.0	24.0	25.0	19.5
26	14.0	12.0	1.5	7.0	11.0	5.0	18.0	17.0	25.5	25.5	23.0	21.0
27	11.0	10.0	1.5	3.0	6.5	4.0	19.5	19.0	25.0	23.0	24.0	22.5
28	12.0	10.0	3.0	4.0	7.0	4.0	16.0	19.0	25.0	22.5	24.5	23.5
29	11.5	9.0	3.5	6.0	---	9.0	15.0	19.5	24.0	24.0	21.0	23.0
30	11.5	12.0	7.0	7.0	---	9.0	14.0	18.0	23.5	21.0	20.0	22.0
31	11.5	---	5.0	4.0	---	10.0	---	20.5	---	18.5	20.0	---
MONTH	15.0	8.0	7.0	4.0	5.5	8.0	14.5	17.0	24.0	24.5	22.5	20.5

07232500 BEAVER RIVER NEAR GUYMON, OKLA.

LOCATION.--Lat 36°43'24", long 101°29'30", in NW1/4SW1/4 sec.18, T.3 N., R.15 E., Texas County, at gaging station at bridge on U.S. Highway 64 at Dry Sand Draw, 1.2 mi (1.9 km) upstream from Goff Creek, 2.5 mi (4.0 km) north of Guymon, and at mile 650.7 (1,047.0 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED NITRITE (NO2) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.									
12...	.73	39	296	0	82	18	.00	--	--
NOV.									
10...	3.7	31	262	0	55	15	.40	--	--
23...	3.0	33	294	0	64	15	1.7	--	--
DEC.									
07...	2.9	31	266	0	59	14	1.7	--	--
28...	7.1	27	258	0	51	12	1.0	--	--
JAN.									
18...	13	26	234	0	47	13	.50	--	--
FEB.									
08...	9.2	32	294	0	58	17	.90	--	--
MAR.									
05...	10	--	--	--	--	--	--	--	--
25...	7.9	30	256	0	52	15	.10	--	--
30...	7.2	--	--	--	--	5.0	.50	.02	.05
APR.									
12...	5.3	30	258	0	54	15	.10	--	--
MAY									
03...	4.5	--	--	--	--	--	--	--	--
24...	.41	31	254	0	60	12	2.4	--	--
JUNE									
02...	12	--	--	--	--	--	--	--	--
21...	1.0	30	244	0	50	12	3.0	--	--
JULY									
20...	413	5.4	234	0	11	2.9	2.2	--	--
20...	225	--	--	--	--	--	--	--	--
21...	52	--	--	--	--	--	--	--	--
23...	18	--	--	--	--	--	--	--	--
AUG.									
17...	.59	30	238	0	58	12	1.7	--	--
SEP.									
03...	.25	--	--	--	--	--	--	--	--
21...	.56	30	254	0	60	12	2.1	--	--

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON, OKLA.

DRAINAGE AREA.--2,139 sq mi (5,540 km²), includes that of Dry Sand Draw, of which 964 sq mi (2,496.8 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: Water years 1952-59 (partial-record station), November 1959 to September 1963, October 1967 to current year.
Water temperatures: November 1959 to September 1963.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT.									
12...	402	.55	7.90	270	27	1.0	657	8.0	--
NOV.									
10...	334	.45	3.34	230	15	.9	554	8.0	--
23...	373	.51	3.02	260	19	.9	607	8.1	--
DEC.									
07...	350	.48	2.74	230	12	.9	558	8.1	--
28...	317	.43	6.08	220	8	.8	525	7.9	--
JAN.									
18...	293	.40	10.3	200	8	.8	488	8.1	--
FEB.									
08...	371	.50	92.2	250	9	.9	605	8.1	--
MAR.									
05...	--	--	--	--	--	--	556	--	--
25...	323	.44	68.9	220	10	.9	529	8.0	--
30...	--	--	--	--	--	--	531	8.3	.3
APR.									
12...	324	.44	46.4	220	8	.9	533	8.0	--
MAY									
03...	--	--	--	--	--	--	508	--	--
24...	322	.44	.36	220	12	.9	532	8.0	--
JUNE									
02...	--	--	--	--	--	--	558	--	--
21...	316	.43	.85	210	10	.9	518	8.0	--
JULY									
20...	236	.32	2630	200	8	.2	394	7.5	--
20...	--	--	--	--	--	--	412	--	--
21...	--	--	--	--	--	--	358	--	--
23...	--	--	--	--	--	--	430	--	--
AUG.									
17...	311	.42	.50	210	15	.9	514	8.0	--
SEP.									
03...	--	--	--	--	--	--	539	--	--
21...	325	.44	.49	220	12	.9	532	7.9	--

07234000 BEAVER RIVER AT BEAVER, OKLA.

LOCATION.--Lat 36°49'20", long 100°31'05", in SW1/4 sec.7, T.4 N., R.24 E., Beaver County, at gaging station at bridge on U.S. Highway 270 at Beaver, 1.5 mi (2.4 km) downstream from Home Creek, 5.0 mi (8.0 km) upstream from Clear Creek, and at mile 576.0 (926.8 km).

DRAINAGE AREA.--7,955 sq mi (20,603.4 km^2), of which 4,270 sq mi (11,059.3 km^2) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: Water years 1958-59 (partial-record station), November 1961 to September 1963, October 1967 to current year.
Water temperatures: October 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
OCT.									
01...	.01	140	92	510	180	0	580	740	1.1
09-10	.06	140	92	510	180	0	580	740	1.1
11-19	.04	120	88	430	130	0	540	640	.70
NOV.									
01-15	.18	150	89	440	200	0	550	660	.80
16-30	.10	150	91	460	218	0	560	680	.80
DEC.									
01-10	.08	130	88	440	160	0	550	660	.80
11-20	.06	140	87	440	180	0	540	660	.80
21-27	.06	160	85	450	230	0	550	660	2.3
29-31	.10	160	85	450	230	0	550	660	2.3
JAN.									
02...	.28	110	88	470	140	0	470	710	2.4
07-10	.05	110	88	470	140	0	470	710	2.4
11-21	5.0	120	75	410	152	0	440	620	2.4
22-27	25	65	43	370	160	0	200	550	3.5
28-31	7.6	86	56	480	184	0	260	720	1.7
FEB.									
01-10	4.9	90	63	550	154	0	310	840	1.4
11-20	16	94	58	520	200	0	280	780	1.5
21-24	16	82	66	500	134	4	330	740	6.7
25-28	69	68	48	380	134	0	260	560	1.1
MAR.									
01-10	45	78	6.0	520	170	0	310	770	2.1
11-20	29	96	68	600	176	0	360	910	1.4
21-31	16	92	78	640	150	0	390	1000	.60
APR.									
01-10	12	100	95	710	176	0	440	1100	1.2
11-20	9.2	96	85	720	154	0	440	1100	1.5
21-30	10	100	80	680	186	0	430	1000	--
MAY									
01-10	3.7	130	82	710	160	0	480	1100	1.0
11-19	.78	170	98	620	218	0	560	1000	1.3
20-30	.40	160	120	580	134	0	650	970	2.0
31...	164	86	31	340	232	8	220	440	9.4
JUNE									
01...	388	23	26	64	160	8	53	75	6.0
02...	232	70	18	150	174	6	120	200	6.0
03...	145	51	14	82	168	8	75	91	8.7
04-06	50	74	26	160	200	10	130	230	5.6
07-09	6.3	100	42	350	192	8	260	520	1.8
10-11	1940	45	8.8	42	152	4	37	44	3.6
12-17	228	51	16	65	156	4	62	89	5.6
18-20	45	82	28	220	134	28	160	330	.20
21-23	14	120	46	360	176	8	270	560	2.4
24-30	.79	170	74	430	204	4	510	660	.40
JULY									
01-03	.34	140	62	340	194	0	420	520	2.5
04-08	76	49	16	44	182	0	46	56	7.6
09-10	13	58	16	91	164	0	54	140	9.4
11...	2.7	77	36	190	122	6	230	290	9.0
12-13	51	160	78	380	176	0	520	590	2.6
14-17	.19	180	92	480	240	0	580	750	1.8
19...	.08	180	92	480	240	0	580	750	1.8
20...	.08	140	100	610	108	0	680	900	1.5
21-24	53	46	14	65	164	0	59	88	1.8
25-28	4.8	160	75	350	200	0	490	540	3.0
29-31	510	34	7.8	21	10	0	27	28	11.1
AUG.									
01-03	61	37	7.8	25	136	0	26	30	4.3
04-08	69	45	11	44	134	2	52	65	3.4
09-12	13	64	23	140	162	0	120	220	3.2
13-16	19	49	14	78	156	2	67	110	4.3
17-19	7.1	81	26	140	192	2	150	220	2.3
20-26	.14	140	75	520	340	4	420	760	1.2
WTD. AVG.	--	55	21	149	139	3	109	213	3.6
TIME WTD. AVG.	38	111	67	446	176	1	391	677	2.0
TOT. LOAD (TONS)	--	1710	642	4650	4350	94	3390	6650	110

07234000 BEAVER RIVER AT BEAVER, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 2,720 mg/l May 1-10; minimum, 230 mg/l Aug. 1-3.
Hardness: Maximum, 880 mg/l May 20-30; minimum, 120 mg/l July 29-31, Aug. 1-3.
Specific conductance: Maximum daily, 4,730 micromhos May 5; minimum daily,286 micromhos July 31.
Water temperatures: Maximum, 34.0°C July 13; minimum, 0.5°C Jan. 11-12, 14, Feb. 6.

Period of record.--Dissolved solids (1967-71): Maximum, 3,320 mg/l July 11-13, 1970; minimum, 170 mg/l Aug. 28-29, 1968.
Hardness (1967-71): Maximum, 915 mg/l Oct. 1-5, 1967; minimum, 112 mg/l Aug. 29-29, 1968.
Specific conductance (1967-71): Maximum daily, 5,440 micromhos July 12, 13, 1970; minimum daily, 286 micromhos July 31, 1971.
Water temperatures (1967-71): Maximum, 36.0°C July 12, 14, 1970; minimum, freezing point on several days during winter period.

REMARKS.--No flow Oct. 2-7, 20-26, Dec. 28, Jan. 1 2-6, July 18, Aug. 27-Sept. 30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM AD-SORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.								
01...	2270	3.09	.06	720	570	8.2	3540	8.0
09-10	2270	3.09	.37	720	570	8.2	3540	8.0
11-19	1980	2.69	.21	670	560	7.3	3140	8.0
NOV.								
01-15	2090	2.84	1.02	730	570	7.0	3260	8.0
16-30	2150	2.92	.58	760	580	7.3	3360	8.0
DEC.								
01-10	2100	2.86	.45	700	570	7.3	3240	8.1
11-20	2070	2.82	.34	710	560	7.2	3240	8.0
21-27	2150	2.92	.35	740	550	7.2	3290	8.0
29-31	2150	2.92	.58	740	550	7.2	3290	8.0
JAN.								
02...	2140	2.91	1.62	640	530	8.1	3270	8.3
07-10	2140	2.91	.29	640	530	8.1	3270	8.3
11-21	1890	2.57	25.5	600	480	7.2	2940	8.2
22-27	1410	1.92	95.2	340	210	8.7	2360	8.3
28-31	1850	2.52	38.0	440	290	9.9	3040	8.3
FEB.								
01-10	2090	2.84	27.7	480	350	11	3470	8.3
11-20	1920	2.61	82.9	480	320	10	3280	8.2
21-24	1980	2.69	85.5	480	360	10	3200	8.4
25-28	1470	2.00	274	370	260	8.6	2460	8.1
MAR.								
01-10	1920	2.61	233	440	300	15	3130	8.3
11-20	2240	3.05	175	520	380	11	3670	8.3
21-31	2380	3.24	103	550	430	12	3970	8.2
APR.								
01-10	2670	3.63	86.5	650	510	12	4330	8.3
11-20	2620	3.56	65.1	590	460	13	4330	8.3
21-30	2520	3.43	68.0	580	430	12	4150	8.3
MAY								
01-10	2720	3.70	27.2	660	530	12	4440	8.2
11-19	2560	3.48	5.39	840	660	9.4	4300	8.3
20-30	2670	3.63	2.88	880	770	8.4	4100	8.2
31...	1370	1.86	607	340	140	8.0	2190	8.6
JUNE								
01...	400	.54	419	160	15	2.2	644	8.6
02...	754	1.03	472	250	97	4.1	1190	8.6
03...	460	.63	180	190	39	2.6	733	8.6
04-06	816	1.11	110	290	110	4.1	1330	8.6
07-09	1460	1.99	24.8	420	250	7.4	2400	8.6
10-11	302	.41	1560	150	19	1.5	479	8.5
12-17	414	.56	255	190	55	2.0	660	8.5
18-20	960	1.33	119	320	160	5.4	1620	9.0
21-25	1590	2.16	60.1	480	320	7.1	2570	8.5
26-30	2110	2.87	4.50	720	550	6.9	3200	8.4
JULY								
01-03	1670	2.27	1.53	610	450	6.0	2600	7.8
04-08	366	.50	75.1	190	41	1.4	606	7.4
09-10	571	.78	20.0	210	75	2.7	880	7.1
11...	952	1.29	6.98	340	230	4.5	1460	8.4
12-13	1940	2.64	267	720	580	6.2	2940	7.6
14-17	2380	3.24	1.22	830	630	7.3	3550	8.1
19...	2380	3.24	.51	830	630	7.3	3550	8.1
20...	2640	3.59	.57	760	670	9.6	3810	8.3
21-24	396	.54	56.7	170	35	2.2	662	8.3
25-28	1730	2.35	22.4	700	540	5.7	2700	8.3
29-31	200	.27	275	120	110	.8	332	7.7
AUG.								
01-03	230	.31	37.9	120	8	1.0	376	8.3
04-08	320	.44	59.6	160	47	1.5	539	8.4
09-12	710	.97	24.9	260	130	3.8	1200	8.2
13-16	430	.58	22.1	180	49	2.5	735	8.4
17-19	780	1.06	15.0	310	150	3.5	1280	8.4
20-26	2160	' 2.94	.82	670	380	8.8	3510	8.4
WTD. AVG.	688	.94	--	231	112	3.6	1120	8.3
TIME WTD. AVG.	1890	2.57	--	561	415	8.1	3030	8.2
TOT. LOAD (TONS)	21500	--	--	--	--	--	--	--

07234000 BEAVER RIVER AT BEAVER, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3470	3180	3350	---	3190	2610	4430	4470	644	2990	320	---
2	---	3250	2950	3420	3300	2800	4340	---	1160	2430	348	---
3	---	3270	3160	---	3460	2960	4280	4510	733	2400	449	---
4	---	3110	3210	---	3830	3140	4220	4590	1200	676	575	---
5	---	3140	3180	---	3460	3360	4120	4730	1200	681	688	---
6	---	3170	3180	---	3460	3430	4240	4590	1600	483	374	---
7	---	3260	3300	3260	3980	3330	4410	4510	2050	520	527	---
8	---	3320	3130	3290	3800	3440	4560	4460	2510	592	496	---
9	3230	3440	3130	3170	3430	3610	4520	4400	2760	791	1310	---
10	3280	3400	3180	3060	3080	3580	4290	4440	849	978	988	---
11	3250	3400	2930	2960	3160	3480	4250	4260	504	1520	1140	---
12	3250	3320	3160	3090	3480	3500	4390	4430	587	2880	1410	---
13	3440	3020	2860	3110	2840	3660	4500	4430	667	3050	849	---
14	3020	3280	3490	3100	2800	3660	4570	4440	502	3960	603	---
15	3090	3250	3300	2950	3180	3630	4510	4310	546	4270	737	---
16	3230	3250	3300	2880	3430	3690	4360	4140	688	4090	718	---
17	3230	3370	3390	2790	3550	3840	4340	4140	981	3030	1060	---
18	3230	3420	3270	2800	3330	3990	4470	4030	1400	---	1260	---
19	3070	3420	3210	2890	3500	4010	4290	4430	1720	3450	1570	---
20	---	3390	3290	2650	3590	4040	4250	4080	1820	3810	3600	---
21	---	3320	3290	3260	---	4030	4330	4130	2290	752	3650	---
22	---	3390	3120	2450	---	4080	4330	4170	2610	460	3610	---
23	---	3290	3070	2090	3930	4120	3740	4110	2880	606	1770	---
24	---	3230	3200	2260	3280	4090	3680	4090	3100	801	3520	---
25	---	3310	3200	2460	2720	3970	4250	4190	3130	2030	3730	---
26	---	3360	3350	2610	2200	4000	4330	4040	3110	2770	3760	---
27	3380	3320	3350	2750	2660	4020	4440	3980	3550	3160	---	---
28	3180	---	---	2840	2570	4030	4500	3970	3310	3190	---	---
29	3220	3360	---	2960	---	4020	4310	4650	3360	381	---	---
30	3260	3660	3730	3260	---	4080	4320	4670	3110	334	---	---
31	3310	---	3550	3320	---	4290	---	2190	---	286	---	---
MONTH	---	3310	3240	2910	3280	3690	4320	4250	1810	1910	1500	---

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	12.0	10.0	---	2.0	5.5	13.0	18.5	29.0	24.5	---	---
2	---	8.0	9.0	5.5	5.5	3.0	15.0	---	27.0	24.5	---	---
3	---	5.0	9.0	---	11.5	6.0	14.5	23.5	25.0	28.0	---	---
4	---	10.0	9.5	---	3.5	12.5	13.0	23.5	28.0	30.0	28.5	---
5	---	12.0	7.5	---	5.0	10.5	9.5	20.5	28.5	29.5	26.0	---
6	---	15.0	8.0	---	0.5	9.0	17.0	23.5	29.5	29.0	26.0	---
7	---	13.0	9.5	1.0	1.0	11.0	17.5	23.5	28.0	29.5	26.0	---
8	---	8.0	10.0	1.5	1.0	13.0	20.5	22.0	26.0	30.5	26.5	---
9	14.0	12.0	9.5	2.0	3.0	13.0	19.5	23.5	27.5	27.0	27.5	---
10	17.0	13.0	4.5	2.0	3.0	15.5	19.0	21.0	28.5	29.5	30.5	---
11	13.0	9.0	4.5	0.5	6.5	17.5	26.5	14.5	23.5	27.0	32.5	---
12	12.0	10.0	6.0	0.5	9.5	17.5	26.0	21.0	27.0	32.0	29.0	---
13	17.0	6.0	9.0	2.0	12.0	19.5	18.5	24.0	27.0	34.0	27.0	---
14	10.0	5.5	8.0	0.5	14.0	10.0	20.5	26.5	28.5	31.0	28.5	---
15	12.0	10.0	8.0	2.5	12.5	12.5	19.0	25.0	30.5	29.5	25.5	---
16	13.0	11.5	7.5	3.0	13.0	16.5	21.0	26.0	29.0	28.5	29.0	---
17	12.0	12.0	8.5	3.5	13.0	14.0	21.5	27.5	28.5	29.0	29.0	---
18	11.0	10.5	5.0	3.0	14.0	5.5	21.0	13.5	28.5	---	28.5	---
19	17.0	9.5	5.5	4.0	12.0	11.5	13.0	25.0	28.5	22.5	27.5	---
20	---	9.5	5.0	5.0	3.5	13.5	18.5	25.5	28.0	25.0	28.0	---
21	[illegible]	12.5	4.5	5.0	---	14.0	23.5	24.0	31.5	28.0	28.5	---
22	---	6.0	8.0	6.5	---	10.0	17.5	25.5	31.5	28.5	23.5	---
23	---	4.5	7.5	6.0	1.5	13.5	15.0	21.5	31.0	28.5	26.5	---
24	---	5.0	4.5	9.5	2.0	7.0	23.5	21.5	31.5	31.5	25.0	---
25	---	10.5	4.0	9.5	2.0	15.5	20.0	27.5	33.0	32.5	25.5	---
26	---	7.0	2.5	8.5	2.5	16.5	24.5	25.5	30.5	28.5	25.0	---
27	10.0	7.5	7.5	12.0	6.5	18.0	24.0	27.0	25.0	28.0	---	---
28	12.0	10.5	---	11.0	6.0	18.0	20.0	28.0	31.5	27.5	---	---
29	13.0	12.5	5.5	7.5	---	20.0	16.0	21.0	34.0	---	---	---
30	15.0	13.5	5.0	10.5	---	18.5	25.0	20.5	25.0	---	---	---
31	11.0	---	5.5	3.0	---	17.5	---	23.5	---	---	---	---
MONTH	---	9.5	7.0	5.0	6.5	13.0	19.5	23.0	28.5	28.5	---	---

07238000 NORTH CANADIAN RIVER NEAR SEILING, OKLA.

LOCATION.--Lat 36°11'06", long 98°55'15", in NW1/4 sec.28, T.20 N., R.16 W., Major County, at gaging station at bridge on U.S. Highway 60, 2.0 mi (3.2 km) upstream from Seiling Creek, 2.2 mi (3.5 km) north of Seiling, 2.8 mi (4.5 km) downstream from Deep Creek, and at mile 422.6 (680.0 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
DEC.								
17...	1.3	180	232	0	700	110	--	.00
JAN.								
21...	19	140	236	0	330	180	--	4.4
FEB.								
03...	20	170	252	0	310	220	--	.40
MAR.								
04...	63	150	232	0	260	210	.11	.50
24...	6.5	--	--	--	--	--	--	--
APR.								
15...	41	220	252	0	300	310	.07	.30
MAY								
07...	32	200	260	0	280	300	.05	.20
27...	4.6	--	--	--	--	--	--	--
JUNE								
08...	.03	270	306	0	680	340	.05	.20
JULY								
01...	19	140	232	0	180	190	.11	.50

ARKANSAS RIVER BASIN

07238500 CANTON LAKE NEAR CANTON, OKLA.

LOCATION.--Lat 36°05'03", long 98°36'05", in SE1/4NE1/4 sec.32, T.19 N., R.13 W., Blaine County, near right end of Canton Dam on North Canadian River, 2.0 mi (3.2 km) northwest of Canton, and at mile 394.3 (634.4 km).

DRAINAGE AREA.--12,483 sq mi (32,331.0 km²), of which 4,883 sq mi (12,647.0 km²) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESERVOIR STORAGE (AC-FT)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
OCT.								
15...	74300	200	184	0	250	280	--	.90
NOV.								
01...	73100	200	178	0	250	280	--	.60
15...	72140	200	178	0	250	280	--	.50
DEC.								
03...	71300	200	184	0	250	280	--	.40
15...	70800	200	182	0	250	290	--	.30
JAN.								
14...	70500	200	190	0	260	290	--	.50
FEB.								
14...	69800	200	188	0	250	280	--	.70
MAR.								
02...	71600	190	182	0	240	260	.00	.00
16...	73800	200	188	0	240	280	.11	.50
APR.								
01...	74400	200	200	0	240	280	.05	.20
18...	69300	210	200	0	270	300	.00	.00
MAY								
03...	63300	210	206	0	270	300	.00	.00
15...	62600	220	208	0	280	310	.00	.00
JUNE								
01...	61100	220	198	0	280	310	.00	.00
JULY								
15...	59500	210	172	0	270	300	.00	.00
AUG.								
03...	57500	220	172	0	270	310	.00	.00
15...	56300	220	170	0	280	310	.00	.00
SEP.								
01...	41200	230	168	0	280	320	.20	.90
15...	39800	240	166	0	290	330	.00	.00

07238000 NORTH CANADIAN RIVER NEAR SEILING, OKLA.

DRAINAGE AREA.--12,261 sq mi (31,756.0 km^2), of which 4,847 sq mi (12,553.7 km^2) is probably noncontributing.

PERIOD OF RECORD.--Water years 1951 and 1953-59 (partial-record station), October 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
DEC.								
17...	1570	2.14	5.50	880	690	1.5	1850	8.1
JAN.								
21...	1110	1.51	56.9	520	326	2.7	1560	8.0
FEB.								
03...	1040	1.41	56.1	500	293	3.3	1640	7.9
MAR.								
04...	956	1.30	162	440	250	3.1	1510	8.0
24...	--	--	--	--	--	--	1890	--
APR.								
15...	1200	1.63	132	500	290	4.3	1890	7.6
MAY								
07...	1160	1.58	100	500	290	3.9	1860	8.0
27...	--	--	--	--	--	--	1910	--
JUNE								
04...	1890	2.57	--	880	630	4.0	2620	8.0
JULY								
01...	800	1.09	41.0	340	150	3.3	1300	8.0

ARKANSAS RIVER BASIN

07238500 CANTON LAKE NEAR CANTON, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1954, December 1955 to September 1963, October 1967 to current year.
Water temperatures: October 1951 to September 1954.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TUR-BID-ITY (MG/L)
OCT.								
15...	958	1.30	370	0	18	1610	7.7	--
NOV.								
01...	946	1.29	370	0	18	1610	7.9	--
15...	962	1.31	370	224	4.5	1620	7.8	--
DEC.								
03...	980	1.33	370	219	4.5	1630	7.8	--
15...	970	1.32	370	221	4.5	1640	7.7	--
JAN.								
14...	1000	1.36	394	238	4.4	1680	7.9	--
FEB.								
14...	974	1.32	380	226	4.5	1640	7.8	--
MAR.								
02...	1000	1.36	360	210	4.4	1580	7.8	--
16...	1010	1.37	370	220	4.5	1650	7.8	--
APR.								
01...	1040	1.41	390	230	4.4	1680	7.6	--
18...	1040	1.41	400	240	4.6	1690	8.0	1
MAY								
03...	1060	1.44	410	240	4.5	1750	8.0	4
15...	1070	1.46	420	250	4.7	1760	8.2	1
JUNE								
01...	1080	1.47	410	250	4.7	1770	7.9	10
JULY								
15...	1040	1.41	380	240	4.7	1690	8.1	2
AUG.								
03...	1050	1.43	380	240	4.9	1720	7.9	2
15...	1050	1.43	380	240	4.9	1740	7.8	3
SEP.								
01...	1070	1.46	340	250	5.1	1760	8.1	10
15...	1090	1.48	380	240	5.4	1800	8.0	2

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.

LOCATION.--Lat 35°30'01", long 97°11'37", in SW1/4NW1/4 sec.22, T.12 N., R.1 E., Oklahoma County, at gaging station at bridge on county road, 2.2 mi (3.5 km) northwest of Harrah, 3.8 mi (6.1 km) downstream from Choctaw Creek, and at mile 230.0 (370.1 km).

DRAINAGE AREA.--13,501 sq mi (34,967.6 km²), of which 4,899 sq mi (12,688.4 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: October 1968 to current year.
Water temperatures: October 1968 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.								
01-05	122	261	268	12	122	426	28	7.1
06-08	126	61	124	2	46	98	2.7	1.8
09...	1630	26	104	0	22	37	8.5	.96
10...	711	69	126	2	68	106	8.4	.90
11-12	267	137	182	8	94	205	4.7	3.6
13-18	150	278	284	14	112	466	9.2	8.7
19-21	153	182	214	8	85	299	17	11
22-27	140	310	284	10	115	525	12	6.3
28-31	121	240	216	8	100	400	19	8.5
NOV.								
01-14	103	320	256	12	130	500	36	9.5
15-16	140	140	156	4	90	210	19	6.4
17-30	77	320	272	2	130	490	31	13
DEC.								
01-10	74	310	236	8	120	490	41	8.2
11-20	79	282	230	4	130	440	41	12
21-31	75	280	226	4	130	420	51	13
JAN.								
01-03	83	260	216	0	120	410	48	12
04...	425	120	162	0	40	210	8.1	3.5
05...	167	68	130	0	54	90	13	4.2
06-07	94	140	166	0	88	200	33	11
08-19	73	230	228	0	110	340	45	14
20-31	63	250	236	0	110	380	42	20
FEB.								
01-10	58	250	208	0	120	380	38	11
11-19	82	260	206	0	120	400	34	12
20-21	116	190	168	0	93	300	22	9.0
22-23	416	47	112	0	38	68	7.8	2.2
24-28	178	170	142	0	67	250	21	5.3
MAR.								
01-02	94	180	200	4	89	270	25	9.0
03-15	80	270	236	6	140	400	27	7.9
16-31	71	290	246	2	140	420	33	11
APR.								
01-10	70	290	248	0	140	420	37	13
11-18	72	250	260	0	120	370	36	18
19-21	121	200	232	0	940	300	22	18
22...	96	160	212	4	130	200	20	10
23-30	71	240	256	0	120	340	33	23
MAY								
01-12	73	240	226	0	110	360	38	18
13-24	68	230	224	0	120	320	37	25
25...	90	110	118	0	51	180	15	10
26-27	109	180	186	0	100	270	30	36
28...	227	64	104	0	30	100	10	4.9
29...	92	120	118	0	54	180	19	7.3
30-31	72	190	178	0	100	290	30	17
JUNE								
01-02	130	170	158	0	86	260	33	7.5
03-05	603	61	132	0	55	85	13	2.9
06-09	133	160	170	0	98	240	31	8.8
10-12	200	86	140	0	72	120	23	5.5
13-15	90	140	176	0	80	200	34	12
16-21	76	240	216	0	130	340	38	19
22...	364	68	104	0	28	100	7.9	4.2
23-24	98	140	164	0	110	190	23	6.7
25-30	59	250	214	0	140	350	31	18
JULY								
01...	304	210	170	0	130	300	21	16
02-03	848	34	110	0	22	47	12	1.8
04...	153	87	140	0	62	120	26	4.7
05-07	100	160	174	0	76	240	18	5.9
08-24	82	250	196	0	150	380	28	15
25...	127	54	116	0	32	76	23	4.9
26...	78	100	132	0	66	160	24	9.2
27-29	121	210	180	0	120	320	21	15
30...	99	89	116	0	55	120	26	7.1
31...	74	180	170	0	130	260	22	13
AUG.								
01-13	75	240	190	0	120	340	35	30
14...	126	78	102	0	34	120	17	5.2
15...	160	150	158	0	74	210	22	16
16-17	179	79	112	0	47	110	9.5	4.6
18...	83	160	164	0	79	250	26	19
19-31	64	250	192	0	120	360	16	28

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,450 mg/1 Oct. 22-27; minimum 199 mg/1 Oct. 9.
Hardness: Maximum, 460 mg/1 Oct. 22-27; minimum 104 mg/1 Oct. 9.
Specific conductance: Maximum daily, 2,950 micromhos Nov. 12; minimum daily, 346 micromhos Oct. 9.
Water temperatures: Maximum, 33.0 °C July 6, minimum, 2.0 °C Jan. 8, Feb. 9.

Period of record.--Dissolved solids: Maximum, 1,710 mg.1 Dec. 23, 1969; minimum, 167 mg/1 Sept. 24, 1970.
Hardness: Maximum, 525 mg/1 Dec. 23, 1969; minimum, 88 mg/1 Sept. 24, 1970.
Specific conductance: Maximum daily, 3,400 micromhos Oct. 2, 1968, Oct. 31, 1969; minimum daily 268 micromhos Sept. 24, 1970.
Water temperatures: Maximum, 35.0°C July 11, Aug. 9, 1969; minimum, freezing point on Jan. 1, 1969.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-05	1240	1.69	134	430	190	5.5	2060	8.5
06-08	360	.49	122	156	51	2.1	627	8.3
09...	199	.27	876	104	19	1.1	346	8.1
10...	401	.55	770	172	65	2.3	702	8.3
11-12	690	.94	497	270	107	3.6	1180	8.5
13-18	1320	1.80	535	455	199	5.7	2180	8.5
19-21	882	1.20	364	316	127	4.5	1510	8.5
22-27	1450	1.97	548	460	210	6.3	2370	8.5
28-31	1140	1.55	372	360	169	5.5	1860	8.5
NOV.								
01-14	1380	1.88	384	420	190	6.8	2340	8.5
15-16	670	.91	253	225	90	4.1	1160	8.3
17-30	1310	1.78	272	400	174	7.0	2220	8.3
DEC.								
01-10	1350	1.84	269	410	203	6.7	2210	8.5
11-20	1310	1.78	279	390	195	6.2	2090	8.4
21-31	1210	1.65	245	385	193	6.2	2020	8.4
JAN.								
01-03	1140	1.55	255	350	173	6.0	1960	8.2
04...	600	.82	688	210	77	3.6	1040	8.2
05...	346	.47	156	160	53	2.2	640	8.2
06-07	672	.91	170	240	104	3.9	1150	8.2
08-19	1020	1.39	201	330	143	5.5	1740	8.3
20-31	1080	1.47	184	340	146	5.9	1860	8.2
FEB.								
01-10	1120	1.52	175	340	169	5.9	1900	8.3
11-19	1170	1.59	259	340	171	6.1	1920	8.3
20-21	880	1.20	276	270	132	5.0	1490	8.3
22-23	297	.40	334	130	38	1.8	506	8.1
24-28	703	.96	338	210	94	5.1	1230	7.6
MAR.								
01-02	841	1.14	213	290	119	4.6	1430	8.4
03-15	1190	1.62	257	380	176	6.0	2010	8.4
16-31	1230	1.67	236	380	175	6.5	2080	8.4
APR.								
01-10	1230	1.67	232	360	157	6.7	2010	8.3
11-18	1120	1.52	218	350	137	5.8	1880	8.3
19-21	932	1.27	304	310	120	4.9	1540	8.3
22...	836	1.14	217	290	109	4.1	1260	8.4
23-30	1110	1.51	213	350	140	5.6	1750	8.1
MAY								
01-12	1080	1.47	213	330	150	5.7	1750	8.3
13-24	1010	1.37	185	300	120	5.8	1670	8.0
25...	502	.68	122	160	63	3.8	888	8.2
26-27	800	1.09	235	270	120	4.8	1410	8.3
28...	326	.44	200	120	35	2.5	576	8.0
29...	540	.73	134	170	73	4.0	928	7.7
30-31	896	1.22	174	280	130	4.9	1470	7.8
JUNE								
01-02	786	1.07	276	240	110	4.8	1300	8.1
03-05	377	.51	614	160	52	2.1	624	8.0
06-09	762	1.04	274	260	120	4.3	1300	8.1
10-12	476	.65	257	180	65	2.8	796	8.1
13-15	696	.95	169	230	86	4.0	1140	8.1
16-21	1040	1.41	213	310	130	5.9	1730	8.0
22...	339	.46	333	120	35	2.5	589	8.0
23-24	691	.94	183	240	110	3.9	1150	8.1
25-30	1100	1.50	175	310	130	6.2	1780	7.9
JULY								
01...	924	1.26	758	270	130	5.6	1530	8.2
02-03	235	.32	538	110	20	1.4	406	7.7
04...	478	.65	197	180	65	2.8	763	8.1
05-07	744	1.01	201	240	97	4.5	1220	8.1
08-24	1070	1.46	237	330	170	6.0	1820	7.7
25...	308	.42	106	140	45	2.0	536	7.9
26...	514	.70	108	190	82	3.2	882	8.1
27-29	900	1.22	294	280	130	5.5	1540	7.6
30...	428	.58	114	150	55	3.2	741	8.0
31...	840	1.14	168	290	150	4.6	1380	8.1
AUG.								
01-13	1030	1.40	209	280	120	6.2	1700	8.2
14...	387	.53	132	130	46	3.0	664	8.0
15...	683	.93	295	200	70	4.6	1140	8.2
16-17	402	.55	194	140	48	2.9	676	8.0
18...	741	1.01	166	240	110	4.5	1270	8.3
19-31	1080	1.47	187	290	130	6.4	1770	8.1

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
SEP.								
01-07	55	260	196	0	160	370	26	26
08-09	66	180	200	0	110	240	15	23
10-17	52	250	198	0	160	340	26	28
18...	230	210	150	0	150	300	28	30
19-20	300	48	112	0	42	64	11	4.1
21-24	96	180	164	0	150	250	23	14
25...	852	110	142	0	73	160	16	9.0
26-27	282	68	122	0	49	95	9.5	3.5
28-30	87	240	190	0	100	400	21	15
WTD. AVG.	--	190	190	2	105	287	25	11
TIME WTD. AVG.	111	234	212	2	123	351	30	14
TOT. LOAD (TONS)	--	20800	20800	229	11400	31400	2690	1200

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT.			
29...	142	14.0	7.8
NOV.			
19...	84	25.0	3.9
DEC.			
10...	74	14.0	5.4
JAN.			
22...	66	21.0	8.0
FEB.			
10...	71	2.1	7.4
MAR.			
31...	67	16.0	9.6
APR.			
22...	91	22.0	16
MAY			
26...	65	33.0	36
JUNE			
23...	108	17.0	14
JULY			
29...	360	26.0	38
AUG.			
27...	75	21.0	4.6
SEP.			
30...	75	23.0	7.4

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
SEP.								
01-07	1060	1.44	157	310	150	6.4	1810	7.9
08-09	768	1.04	137	250	86	5.0	1320	8.1
10-17	1040	1.41	146	300	140	6.3	1760	8.2
18,...	904	1.23	561	260	140	5.7	1540	8.3
19-20	290	.39	235	130	38	1.8	504	7.7
21-24	816	1.11	212	280	150	4.7	1390	7.6
25...	536	.73	1230	190	74	3.5	930	8.2
26-27	370	.50	282	150	50	2.3	635	7.8
28-30	1020	1.39	240	320	160	5.8	1780	7.8
WTD. AVG.	867	1.18	--	280	121	4.7	1450	8.2
TIME WTD. AVG.	1040	1.41	--	322	145	5.6	1730	8.2
TOT. LOAD (TONS)	95000	--	--	--	--	--	--	--

ANALYSES OF MINOR AND TRACE CONSTITUENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT. 29...	0	110	21	0	18	--	40	60
NOV. 19...	180	580	0	0	24	--	130	20
DEC. 10...	250	590	0	37	520	0	150	30
JAN. 22...	200	520	10	22	24	44	100	40
FEB. 10...	210	400	0	7	22	61	87	20
JUNE 23...	490	88	2	4	11	5	--	10
SEP. 30...	65	42	1	3	12	1	--	19

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT. 29...	2000	8.0	13.0	7.1	72
NOV. 19...	2190	8.1	10.0	7.5	73
DEC. 10...	2190	7.8	10.0	6.6	64
JAN. 22...	1900	7.8	5.0	9.0	76
FEB. 10...	1700	7.9	2.0	11.2	87
MAR. 31...	2120	8.1	12.5	9.2	94
APR. 22...	1280	8.2	19.5	7.5	89
MAY 26...	1280	8.1	27.5	12.4	166
JUNE 23...	1020	8.0	27.5	5.5	74
JULY 29...	1700	7.6	25.0	1.8	23
AUG. 27...	1650	8.4	30.0	12.4	172
SEP. 30...	2210	7.9	23.0	7.4	92

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	2440	2190	2070	1790	1310	2020	1810	1570	1530	1530	1730
2	1970	2390	2260	2030	1860	1550	2140	1790	1060	370	1700	1870
3	2060	2640	2250	1740	1850	1900	2180	1790	768	416	1720	1920
4	2080	1980	2230	1940	1750	1860	2190	1940	502	763	1820	1800
5	2100	2340	2270	640	1990	1880	2020	1840	598	1200	1750	1810
6	713	2360	2260	926	1880	1980	1970	1870	908	1210	1730	1720
7	460	2100	2150	1360	1880	1960	1900	1880	1200	1260	1710	1770
8	711	2390	2180	1510	2040	2040	1780	1860	1470	1710	1740	1320
9	346	2240	2340	1620	2020	2020	1910	1730	1590	1760	1710	1310
10	702	2310	2180	1660	1840	2220	1890	1680	953	1830	1940	1680
11	1000	2540	2280	1720	1830	2130	1960	1380	533	1920	1700	1760
12	1350	2950	2110	1800	2090	2090	1780	1590	876	1890	1370	1840
13	1720	2140	2260	1730	1830	2020	1890	1340	1020	1880	1560	1800
14	1940	1980	1990	1720	1800	2030	2010	1630	1190	1940	665	1710
15	2170	997	2020	1900	2050	2020	1810	1620	1210	1910	1140	1740
16	2400	1250	2100	1830	1930	2100	1830	1630	1610	1810	659	1810
17	2400	1720	2250	1770	1950	2100	1780	1750	1620	1780	694	1730
18	2470	2040	1900	1740	1830	2020	1780	1740	1800	1800	1280	1540
19	1240	2170	2080	1850	1900	2120	1600	---	1740	1760	1880	453
20	1640	2340	2030	1920	1580	2190	1500	1690	1780	1780	1910	541
21	1640	2410	2070	1890	1380	2110	1500	1700	1790	1780	1850	851
22	2060	2420	1990	1820	493	2010	1260	1740	587	1800	1860	1350
23	2520	2300	2110	1890	514	2050	1550	1800	1040	1750	1810	1720
24	2380	2480	1990	1870	1660	2050	1740	1720	1240	1770	1830	1530
25	2480	2340	2000	1800	1110	1980	1770	888	1710	536	1360	930
26	2190	2120	1990	1860	1010	2090	1810	1320	1700	882	2040	514
27	2270	2150	2000	1820	1180	2210	1780	1480	1750	1460	1670	747
28	1360	2100	2130	1860	1160	2130	1710	576	1770	1560	1600	1380
29	1940	2370	1960	1860	---	2080	1720	928	1830	1630	1780	1940
30	1920	2090	2070	1890	---	2070	1770	1420	1910	741	1720	2040
31	2220	---	---	1810	---	2090	---	1530	---	1380	1780	---
MONTH	1760	2200	2120	1710	1650	2010	1820	1590	1310	1480	1600	1500

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	12.5	14.5	7.5	7.0	8.0	13.0	17.0	21.5	24.0	22.0	23.0
2	20.5	9.5	11.5	8.0	6.0	8.0	11.0	19.5	19.5	24.0	21.0	23.5
3	26.0	19.0	12.0	9.5	5.0	5.0	11.0	17.0	22.5	24.5	22.0	23.5
4	19.5	9.5	9.5	6.5	9.0	5.0	12.0	16.0	22.0	26.0	23.0	24.0
5	21.5	8.5	12.5	2.5	8.5	7.5	12.0	20.0	23.5	25.5	24.0	23.0
6	21.5	10.5	8.0	3.0	4.5	9.0	9.5	20.0	24.5	33.0	23.0	23.0
7	22.5	11.0	9.5	2.5	4.5	7.0	9.0	18.5	24.0	27.0	22.0	25.0
8	18.5	15.5	10.0	2.0	3.0	6.5	11.5	25.0	25.0	27.0	23.0	25.0
9	12.5	12.0	12.5	4.0	2.0	10.0	15.0	19.5	22.0	27.5	22.0	25.0
10	13.0	11.0	9.5	5.0	3.0	14.0	12.5	18.5	24.5	26.5	24.5	23.5
11	18.0	12.5	8.5	6.0	6.5	11.0	22.5	19.5	18.0	26.0	25.0	---
12	15.0	13.0	7.0	6.0	---	14.5	19.0	---	25.0	26.0	23.0	23.0
13	16.0	10.0	6.0	5.0	5.0	13.0	19.0	16.5	25.0	25.5	24.0	21.0
14	16.5	---	6.5	6.5	7.0	14.5	13.5	17.5	26.0	20.0	23.5	22.5
15	15.5	7.0	8.0	6.0	9.5	11.5	15.0	18.0	26.0	27.5	23.5	21.5
16	14.0	7.0	8.0	---	10.0	12.5	18.0	19.5	26.5	26.0	23.5	19.5
17	15.0	8.5	7.0	6.5	11.0	11.0	18.0	19.5	26.0	26.0	25.0	19.0
18	15.0	9.5	9.5	7.0	9.5	15.0	18.0	20.0	28.5	23.5	25.5	15.0
19	15.0	12.0	8.0	---	12.0	12.0	19.5	17.5	25.5	25.0	24.5	14.5
20	18.0	9.5	7.5	5.5	11.0	11.5	17.0	19.5	24.5	27.0	24.0	12.5
21	16.0	11.5	8.0	8.5	8.0	9.5	17.0	19.0	24.5	23.5	25.0	14.5
22	19.5	11.0	9.5	8.0	5.0	11.5	19.0	22.0	27.0	25.0	25.0	12.0
23	20.0	6.0	7.0	6.0	7.0	10.0	17.0	22.5	26.0	23.5	26.0	12.5
24	19.0	8.0	9.5	10.0	5.5	---	24.5	18.5	26.5	24.5	25.0	12.5
25	18.0	5.0	5.5	8.0	10.0	8.5	18.0	18.5	27.5	25.0	30.0	19.5
26	19.5	9.5	8.0	8.0	12.0	10.0	20.0	22.0	27.0	26.0	25.0	21.5
27	16.0	9.5	9.5	5.5	9.5	12.5	19.0	20.5	28.5	23.0	25.0	18.0
28	13.0	9.0	5.0	7.0	9.5	12.0	17.5	20.0	---	24.5	25.0	23.0
29	12.5	12.0	6.0	9.0	---	12.0	15.5	20.0	28.0	25.5	24.5	23.0
30	13.5	11.5	9.0	10.0	---	12.5	19.0	18.5	28.0	21.0	23.5	22.5
31	14.0	---	---	7.0	---	12.5	---	22.0	---	20.0	22.5	---
MONTH	17.0	10.5	8.5	6.5	7.5	10.5	16.0	19.5	25.0	25.0	24.0	20.0

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OKLA.

LOCATION.--Lat 35°15'53", long 96°12'25", in center of SW1/4 sec.12, T.9 N., R.10 E., Hughes County, at gaging station at bridge on U.S. Highway 75, 2.3 mi (3.7 km) upstream from Wewoka Creek, 2.5 mi (4.0 km) northeast of Wetumka, and at mile 84.4 (135.8 km).

DRAINAGE AREA.--14,290 sq mi (37,011.1 km²), of which 4,899 sq mi (12,688.4 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: Water year 1952 (partial-record station), October to current year. Water tempertures: October 1953 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.								
01-02	526	150	192	8	72	240	3.6	1.8
03-06	512	200	236	8	99	310	7.7	3.2
07-08	2690	51	86	12	25	83	2.0	.89
09-10	8260	15	86	0	6.2	20	2.1	.67
11-12	3130	28	100	0	22	40	2.6	.84
13-15	1010	76	158	2	47	120	2.9	1.5
16-19	497	160	266	10	65	260	5.5	1.6
20-23	696	210	300	20	63	360	9.0	2.3
24-28	4010	30	96	0	9.0	52	2.4	.69
29-30	1140	42	118	0	17	72	2.1	.75
31...	724	87	186	4	33	160	3.3	1.3
NOV.								
01-03	602	150	234	12	37	260	4.7	1.9
04-14	385	200	308	12	53	360	8.8	2.8
15-25	422	180	256	0	51	310	4.7	2.9
26-30	271	240	318	16	59	420	4.8	3.8
DEC.								
01-10	224	250	312	26	62	440	7.3	3.9
11-20	211	250	314	18	73	440	10	4.6
21-31	189	250	336	0	72	440	12	5.3
JAN.								
01-02	174	230	218	24	68	420	8.0	1.6
03-10	462	170	180	4	48	310	12	2.9
11-14	270	130	212	8	54	240	9.6	2.0
15-31	198	210	304	0	74	380	14	4.6
FEB.								
01-05	173	220	298	20	69	410	16	4.9
06-07	285	160	212	12	49	280	19	5.1
08-21	136	220	288	6	67	370	20	4.9
22-28	660	96	136	0	39	160	8.4	2.1
MAR.								
01-05	298	140	180	6	51	220	16	2.7
06-11	216	180	258	16	58	300	14	.83
12-21	182	230	254	16	80	410	11	3.3
22-31	162	240	312	8	76	420	9.3	3.4
APR.								
01-10	140	260	244	14	97	450	3.7	2.6
11-21	183	260	190	8	92	440	4.4	1.7
22-24	488	74	144	0	29	120	5.0	3.3
25-30	210	150	210	8	63	250	5.4	3.2
MAY								
01-09	137	220	180	2	64	370	6.8	1.9
10-11	240	160	176	4	45	260	5.8	2.1
12-27	125	230	212	6	63	370	4.9	1.7
28...	458	71	142	4	22	120	7.6	2.9
29-31	225	180	176	0	57	290	10	4.2
JUNE								
01-02	245	150	182	4	60	250	11	6.0
03-05	1720	37	102	0	16	62	4.4	1.1
06-09	618	67	126	0	41	110	11	3.1
10...	818	32	90	0	20	56	5.5	1.5
11-12	346	76	130	2	42	130	5.5	1.9
13-14	154	41	84	0	23	66	4.5	.94
15...	4170	13	72	0	8.2	17	3.7	.80
16-18	785	49	128	0	19	86	3.8	1.0
19-30	211	120	228	6	44	220	3.2	2.2
JULY								
01...	458	150	246	0	62	240	6.4	2.3
02-05	1200	46	112	0	16	80	7.7	.95
06-10	363	72	146	0	41	110	25	2.3
11-22	112	170	272	0	63	280	3.6	2.0
23...	318	40	90	0	18	60	9.9	.87
24-27	209	120	200	0	39	200	1.7	1.2
28-29	184	200	246	8	100	310	3.4	1.7
30-31	310	72	102	0	33	120	6.7	1.7
WTD. AVG.	--	104	166	4	37	178	6.0	1.9
TIME WTD. AVG.	473	178	231	7	59	305	8.4	2.8
TOT. LOAD (TONS)	--	40500	64600	1590	14200	69100	2320	723

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,290 mg/l Dec. 1-10; minimum, 119 mg/l June 15.
Hardness: Maximum, 480 mg/l Dec. 1-10, 11-20; minimum, 64 mg/l June 15.
Specific conductance: Maximum daily, 2,140 micromhos Dec. 11; minimum daily, 190 micromhos Sept. 6.
Water temperatures: Maximum, 39.0 °C July 5; minimum, freezing point on Feb. 8-9.

Period of record.--Dissolved solids (1953-57, 1961-71): Maximum, 25,800 mg/l Feb. 8, 1955; minimum, 110 mg/l June 15, 1971.
Hardness (1953-57, 1961-71): Maximum, 4,640 mg/l Dec. 31, 1954; minimum, 64 mg/l June 15, 1971.
Specific conductance: Maximum daily, 37,100 micromhos Dec. 31, 1954; minimum daily, 190 micromhos Sept. 6, 1971.
Water temperatures: Maximum, 39.0 °C July 5, 1971; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-02	714	.97	1010	270	99	4.0	1230	8.6
03-06	910	1.24	1260	340	133	4.7	1580	8.5
07-08	290	.39	2110	120	29	2.0	504	8.9
09-10	137	.19	3060	74	3	.8	231	8.1
11-12	197	.27	1660	100	18	1.2	348	8.2
13-15	436	.59	1190	200	67	2.3	763	8.4
16-19	807	1.10	1080	350	115	3.7	1390	8.5
20-23	1050	1.43	1970	430	151	4.4	1770	8.6
24-28	221	.30	2390	96	17	1.3	364	8.1
29-30	270	.37	831	120	23	1.7	459	8.3
31...	500	.68	977	220	61	2.6	862	8.5
NOV.								
01-03	787	1.07	1280	316	104	3.7	1310	8.6
04-14	1030	1.40	1070	420	147	4.2	1740	8.5
15-25	881	1.20	1000	380	130	4.2	1490	8.3
26-30	1160	1.58	848	460	172	4.9	1950	8.6
DEC.								
01-10	1290	1.75	780	480	181	5.0	2020	8.7
11-20	1220	1.66	695	480	192	5.0	2020	8.6
21-31	1210	1.65	617	470	194	5.0	1990	8.3
JAN.								
01-02	1080	1.47	507	380	161	5.1	1800	8.8
03-10	829	1.13	1030	280	126	4.4	1370	8.4
11-14	713	.97	520	290	103	3.3	1200	8.5
15-31	1070	1.46	572	400	151	4.6	1790	7.8
FEB.								
01-05	1140	1.55	532	440	162	4.6	1830	8.6
06-07	818	1.11	629	310	116	4.0	1330	8.6
08-21	1070	1.46	392	400	154	4.8	1730	8.4
22-28	491	.67	874	180	68	3.1	843	8.1
MAR.								
01-05	640	.87	515	240	82	3.9	1110	8.5
06-11	880	1.20	513	370	132	4.1	1500	8.6
12-21	1050	1.43	516	400	165	5.0	1860	8.7
22-31	1120	1.52	490	440	171	5.0	1970	8.5
APR.								
01-10	1150	1.56	435	390	166	5.7	1880	8.6
11-21	1050	1.43	518	310	141	6.4	1690	8.6
22-24	396	.54	522	160	42	2.5	675	8.3
25-30	732	1.00	415	280	94	3.9	1240	8.5
MAY								
01-09	882	1.20	326	270	119	5.8	1580	8.4
10-11	682	.93	442	240	89	4.5	1210	8.5
12-27	950	1.29	321	300	116	5.8	1640	8.5
28...	398	.54	492	170	47	2.4	678	8.5
29-31	768	1.04	466	250	106	5.0	1320	8.3
JUNE								
01-02	736	1.00	487	260	104	4.0	1270	8.5
03-05	236	.32	1100	110	26	1.5	411	8.2
06-09	380	.52	172	160	57	2.3	667	8.2
10...	251	.34	554	100	26	1.4	388	8.1
11-12	418	.57	390	170	60	2.5	713	8.4
13-14	248	.34	103	100	31	1.8	415	8.1
15...	119	.16	1340	64	5	.7	193	7.8
16-18	310	.42	657	140	35	1.8	524	8.3
19-30	654	.89	372	280	83	3.1	1140	8.5
JULY								
01...	745	1.01	921	300	98	3.8	1220	8.3
02-05	281	.38	910	120	28	1.8	470	7.2
06-10	424	.58	415	170	50	2.4	711	7.2
11-22	850	1.16	257	320	97	4.1	1410	8.0
23...	240	.33	206	96	22	1.8	397	8.0
24-27	584	.79	330	230	66	3.4	1030	7.8
28-29	924	1.26	459	340	125	4.7	1550	8.5
30-31	363	.49	304	130	46	2.7	632	6.9
WTD. AVG.	540	.74	--	214	70	2.8	911	8.2
TIME WTD. AVG.	855	1.16	--	321	120	4.2	1440	8.4
TOT. LOAD (TONS)	210000	--	--	--	--	--	--	--

07242000 NORTH CANADIAN RIVER NEAR METUMKA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	1400	2030	1730	1910	983	1820	---	1190	1210	1120	1710
2	1380	1260	2060	1890	1900	1160	1830	1460	1360	476	1320	1720
3	1860	1250	2030	1210	1870	1160	1950	1550	333	347	1480	1830
4	1590	1440	1970	1140	1790	1150	1960	1580	487	573	1510	1380
5	1580	1630	2040	1400	1790	1140	1900	1620	446	479	1510	1320
6	1700	1630	2060	1400	1330	1400	2000	1580	583	891	1150	190
7	441	1690	2080	1250	1320	1400	1950	1600	890	578	1140	550
8	571	1800	2020	1240	1510	1390	2000	1620	630	587	1270	578
9	227	1800	2060	1660	1500	---	2010	1570	553	689	1480	1040
10	219	1790	2070	1670	1510	1650	2040	1280	388	794	1510	1360
11	339	1850	2140	1090	1640	1660	1980	1130	648	1040	1510	1470
12	339	1890	2110	1090	1640	1780	1960	1660	774	1250	646	1340
13	573	1840	2080	1310	1720	1780	2050	1690	328	1250	1360	1530
14	848	1770	1930	1310	1710	1840	1910	1890	493	1400	1370	1680
15	850	1360	2020	1460	1800	1860	1940	1710	193	1320	1390	1700
16	1150	1610	1970	1450	1800	1920	1860	1630	391	1350	1650	1720
17	1400	1180	1980	1610	1900	1930	1810	1660	486	1440	1590	1760
18	1520	1560	2030	1600	1920	1880	1680	1700	682	1460	1700	1660
19	1500	1600	2040	1720	1930	1870	1660	1480	884	1560	986	1630
20	1670	1590	2040	1720	1930	1920	1760	1580	997	1600	980	1120
21	1860	---	2060	1800	1740	1940	1520	1560	1120	1680	1230	1130
22	1840	1330	1990	1790	828	1920	704	1630	1180	1680	1060	1270
23	1720	1320	1990	1850	820	1930	576	1500	1320	390	1010	1210
24	394	1740	2000	1840	797	1970	760	1530	1110	871	991	944
25	382	1750	2070	1910	796	1980	1220	1620	1290	873	1230	678
26	298	1940	2020	1920	834	1990	1160	1600	1440	1190	1240	---
27	335	1980	2020	1930	846	2000	1340	1660	1130	1200	1750	542
28	327	1990	2000	1930	921	1980	1210	678	1130	1460	1750	675
29	437	2010	2010	1930	---	1980	1210	1100	1070	1680	1760	1150
30	459	---	1960	1900	---	1940	1320	1340	1140	677	1760	594
31	860	---	1950	1920	---	1970	---	1490	---	577	1770	---
MONTH	947	1640	2030	1600	1500	1720	1640	1520	821	1050	1360	1220

07242000 NORTH CANADIAN RIVER NEAR METUMKA, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	11.0	14.0	9.0	8.0	10.0	18.0	---	29.0	28.0	29.0	31.0
2	27.0	9.0	11.0	9.0	8.0	5.0	17.0	---	29.0	24.0	28.0	29.0
3	28.0	9.0	16.0	8.0	5.0	3.0	15.0	22.0	24.0	30.0	26.0	31.0
4	24.0	8.0	9.0	6.0	5.0	6.0	13.0	24.0	28.0	31.0	30.0	26.0
5	21.0	7.0	15.0	5.0	4.0	8.0	10.0	25.0	28.0	39.0	31.0	28.0
6	23.0	9.0	9.0	3.0	4.0	9.0	14.0	22.0	28.0	29.0	26.0	27.0
7	27.0	10.0	8.0	2.0	3.0	12.0	17.0	24.0	29.0	33.0	25.0	32.0
8	20.0	10.0	11.0	2.0	0.0	10.0	18.0	26.0	24.0	30.0	32.0	28.0
9	16.0	12.0	12.0	5.0	0.0	11.0	15.0	20.0	28.0	28.0	33.0	28.0
10	15.0	13.0	12.0	4.0	3.0	8.0	20.0	26.0	28.0	30.0	35.0	28.0
11	14.0	13.0	8.0	8.0	9.0	10.0	18.0	20.0	30.0	33.0	29.0	27.0
12	14.0	18.0	9.0	6.0	9.0	20.0	22.0	18.0	31.0	33.0	30.0	24.0
13	18.0	9.0	10.0	7.0	12.0	20.0	22.0	15.0	26.0	30.0	28.0	24.0
14	16.0	8.0	10.0	---	12.0	22.0	23.0	25.0	25.0	30.0	28.0	23.0
15	14.0	6.0	8.0	4.0	14.0	20.0	22.0	21.0	26.0	32.0	28.0	23.0
16	12.0	7.0	10.0	7.0	14.0	14.0	23.0	29.0	29.0	29.0	32.0	20.0
17	15.0	11.0	10.0	9.0	16.0	8.0	22.0	21.0	31.0	31.0	33.0	20.0
18	15.0	13.0	10.0	8.0	17.0	13.0	22.0	24.0	32.0	32.0	33.0	18.0
19	18.0	12.0	10.0	6.0	31.0	14.0	25.0	22.0	32.0	28.0	33.0	20.0
20	20.0	15.0	10.0	6.0	29.0	15.0	22.0	22.0	29.0	33.0	32.0	22.0
21	19.0	14.0	9.0	10.0	10.0	12.0	23.0	23.0	28.0	28.0	33.0	22.0
22	18.0	10.0	10.0	9.0	5.0	14.0	22.0	23.0	27.0	28.0	32.0	22.0
23	18.0	8.0	9.0	12.0	4.0	12.0	18.0	22.0	34.0	25.0	31.0	19.0
24	16.0	7.0	6.0	12.0	7.0	11.0	21.0	18.0	29.0	32.0	30.0	19.0
25	16.0	7.0	5.0	12.0	8.0	11.0	18.0	28.0	32.0	32.0	34.0	21.0
26	19.0	12.0	---	10.0	12.0	14.0	20.0	26.0	31.0	31.0	35.0	23.0
27	15.0	10.0	5.0	5.0	1.0	18.0	20.0	20.0	30.0	30.0	34.0	24.0
28	12.0	11.0	7.0	9.0	11.0	16.0	20.0	21.0	28.0	30.0	31.0	24.0
29	11.0	14.0	8.0	12.0	---	20.0	17.0	20.0	29.0	29.0	31.0	30.0
30	12.0	---	8.0	12.0	---	19.0	17.0	19.0	29.0	23.0	31.0	27.0
31	12.0	---	7.0	10.0	---	19.0	---	23.0	---	28.0	32.0	---
MONTH	17.5	10.5	9.5	7.5	9.5	13.0	19.0	22.5	29.0	30.0	31.0	24.5

07242350 DEEP FORK RIVER NEAR ARCADIA, OKLA.

LOCATION.--Lat 35°39'10", long 97°20'58", on south line of SW1/4 sec. 30, T.14 N., R.1 W., Oklahoma County, at gaging station on county road bridge, 1.6 mi (2.6 km) upstream from Coffee Creek, 1.6 mi (2.6 km) southwest of Arcadia, and at mile 212.8 (342.4 km).

DRAINAGE AREA.--108 sq mi (279.7 km²).

PERIOD OF RECORD.--Chemical analyses: October 1969 to current year.
Water temperatures: October 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)
OCT.								
01-05	87	196	176	8	155	238	29	16
06...	191	40	110	0	49	50	3.7	6.4
07...	128	93	144	4	91	123	12	5.5
08-09	246	50	120	0	45	71	5.0	3.3
10-20	32	180	194	6	144	224	40	11
21-31	26	190	186	4	145	228	51	35
NOV.								
01-13	25	200	178	4	130	240	56	13
14...	91	95	118	0	88	120	49	25
15-30	30	180	178	2	130	210	56	16
DEC.								
01-10	22	190	166	0	140	220	66	22
11-20	22	180	162	0	140	210	70	18
21-31	19	180	156	0	130	210	70	30
JAN.								
01-02	18	180	156	0	130	220	43	--
03-04	272	84	128	0	81	110	16	9.0
05-15	28	170	174	2	150	210	25	4.2
16-31	25	185	172	0	150	220	48	32
FEB.								
01-10	25	180	170	0	140	220	56	18
11-20	28	170	166	0	140	200	62	19
21-22	182	83	112	0	68	120	24	5.9
23...	169	220	120	0	72	330	17	2.6
24-28	116	92	144	0	70	120	16	2.6
MAR.								
01-10	32	180	200	8	160	230	48	11
11-20	23	200	186	4	160	250	55	16
21-31	25	190	194	4	170	220	51	17
APR.								
01-10	25	170	192	4	150	200	46	18
11-20	31	170	196	0	140	200	49	20
21-30	24	160	188	0	140	190	48	18
MAY								
01-10	26	170	174	0	150	200	45	95
11-20	23	180	168	0	160	200	47	22
21-26	26	170	178	0	150	200	29	8.8
27-30	49	130	104	0	110	160	73	16
31...	54	82	80	0	72	100	83	--
JUNE								
01...	110	69	106	0	67	90	24	--
02...	50	120	140	0	120	160	31	8.5
03...	69	42	98	0	35	65	17	4.4
04-05	48	96	122	0	94	120	33	11
06-07	38	160	172	4	140	200	32	19
08-10	124	62	124	0	64	77	18	4.8
11-20	47	160	170	0	140	200	32	11
21-22	206	44	102	0	44	54	12	6.0
23-30	43	170	174	0	150	220	31	15
JULY								
01-02	606	34	92	0	26	49	2.9	2.4
03-12	29	170	192	0	150	220	38	12
13-23	28	200	176	0	150	250	41	18
24...	103	94	120	0	73	140	12	5.9
25-26	38	170	172	0	140	220	26	7.8
27-29	59	120	140	0	81	150	22	8.4
30-31	27	180	160	0	140	240	33	9.6
AUG.								
01-11	36	190	144	0	150	240	49	19
12...	267	67	92	0	51	96	18	5.3
13-16	64	120	104	0	75	180	32	12
17-31	22	190	144	0	140	240	45	18
SEP.								
01-04	18	200	144	0	160	240	46	23
05-07	24	94	88	0	85	120	25	11
08-17	29	200	136	0	160	250	48	22
18...	368	32	100	0	29	44	9.3	3.6
19-23	38	160	140	0	130	210	42	12
24...	432	95	114	0	78	120	21	9.1
25...	427	44	96	0	39	65	6.5	5.9
26-30	47	160	162	0	140	210	36	12
WTD. AVG.	--	132	146	1	107	166	33	14
TIME WTD. AVG.	45	169	165	1	136	207	45	19
TOT. LOAD (TONS)	--	5870	6480	43	4760	7350	1450	595

07242350 DEEP FORK RIVER NEAR ARCADIA, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 912 mg/1 Mar. 11-20; minimum, 220 mg/1 Sept. 18.
Hardness: Maximum, 310 mg/1 Mar. 1-10; minimum, 100 mg/1 July 1-2.
Specific conductance: Maximum daily, 1,650 micromhos Nov. 2; minimum, 324 micromhos July 1.
Water temperatures: Maximum, 28.0°C on several days during July; minimum, freezing point on Jan. 6, Feb. 8.

Period of record.--Dissolved solids: Maximum, 1,100 mg.1 Mar. 1-9, 1970; minimum, 202 mg/1 Sept. 23, 1970.
Hardness: Maximum, 324 mg/1 Jan. 21-21, 1970; minimum, 98 mg/1 Sept. 23, 1970.
Specific conductance: Maximum daily, 1,780 micromhos Jan. 6, Sept. 10, 1970; minimum daily, 300 micromhos Sept. 23, 1970.
Water temperatures: Maximum, 29.0°C June 17, 18, 1970; minimum, freezing point on Dec. 31, 1969, Jan. 6, 1970, Jan. 6, Feb. 8, 1971.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-05	852	1.16	200	272	114	5.2	1420	8.5
06...	282	.38	145	136	46	1.5	471	8.2
07...	513	.70	177	204	79	2.8	868	8.4
08-09	312	.42	207	136	38	1.9	530	8.2
10-20	832	1.13	71.9	292	123	4.6	1380	8.4
21-31	847	1.15	59.4	272	113	5.0	1410	8.3
NOV.								
01-13	830	1.13	56.0	250	97	5.5	1400	8.4
14...	500	.68	123	185	88	3.0	842	8.2
15-30	780	1.06	63.2	240	91	5.1	1300	8.3
DEC.								
01-10	835	1.14	49.6	250	114	5.2	1370	8.3
11-20	819	1.11	48.6	250	117	5.0	1330	8.3
21-31	810	1.10	41.6	250	122	5.0	1330	8.1
JAN.								
01-02	807	1.10	39.2	230	102	5.2	1330	8.3
03-04	451	.61	331	180	75	2.7	775	8.2
05-15	785	1.07	59.3	260	114	4.6	1310	8.4
16-31	821	1.12	55.4	260	120	5.0	1350	8.3
FEB.								
01-10	812	1.10	54.8	260	120	4.9	1360	8.2
11-20	788	1.07	59.6	260	120	4.6	1320	8.0
21-22	432	.59	212	180	88	2.7	768	8.0
23...	788	1.07	359	200	102	6.8	1430	8.1
24-28	460	.63	144	180	62	3.0	800	8.0
MAR.								
01-10	860	1.17	74.3	310	133	4.4	1450	8.5
11-20	912	1.24	56.6	300	141	5.0	1520	8.4
21-31	852	1.16	57.5	290	124	4.9	1420	8.4
APR.								
01-10	792	1.08	53.5	280	132	4.4	1320	8.4
11-20	800	1.09	67.0	270	109	4.5	1310	8.2
21-30	768	1.04	49.8	270	116	4.2	1280	8.1
MAY								
01-10	844	1.15	59.2	260	117	4.6	1310	8.1
11-20	828	1.13	51.4	260	122	4.9	1320	7.6
21-26	816	1.11	57.2	240	98	4.8	1290	7.0
27-30	696	.95	92.1	220	140	3.8	1060	7.1
31...	500	.68	72.9	170	104	2.7	766	7.7
JUNE								
01...	392	.53	116	150	63	2.5	640	8.2
02...	633	.86	85.4	220	105	3.5	1010	8.3
03...	296	.40	55.1	130	50	1.6	485	8.0
04-05	537	.73	69.6	200	100	3.0	865	8.1
06-07	780	1.06	80.0	250	100	4.4	1260	8.4
08-10	370	.50	124	150	48	2.2	612	8.2
11-20	747	1.02	94.8	250	110	4.4	1210	8.3
21-22	286	.39	159	120	36	1.7	460	8.1
23-30	797	1.08	92.5	260	117	4.6	1300	8.3
JULY								
01-02	226	.31	370	100	25	1.5	387	7.8
03-12	824	1.12	64.5	280	120	4.4	1350	7.4
13-23	880	1.20	66.5	260	120	5.4	1450	7.3
24...	532	.72	148	190	92	3.0	842	8.0
25-26	788	1.07	80.8	250	110	4.7	1310	8.2
27-29	582	.74	86.3	180	65	3.9	920	7.8
30-31	812	1.10	59.2	250	120	5.0	1340	8.0
AUG.								
01-11	848	1.15	82.4	240	120	5.3	1420	7.9
12...	356	.48	257	140	65	2.5	606	7.9
13-16	576	.78	99.5	180	95	3.9	979	7.9
17-31	812	1.10	48.2	240	120	5.3	1360	8.0
SEP.								
01-04	868	1.18	42.2	230	110	5.7	1390	8.2
05-07	452	.61	29.3	180	68	3.5	740	8.0
08-17	880	1.20	68.9	230	120	5.7	1430	8.0
18...	220	.30	219	110	28	1.3	378	8.0
19-23	712	.97	73.1	230	120	4.6	1230	7.3
24...	446	.61	520	150	56	3.4	798	8.1
25...	272	.37	314	120	41	1.7	486	7.7
26-30	736	1.00	93.4	250	120	4.4	1240	7.7
WTD. AVG.	627	.85	--	211	90	3.8	1040	8.1
TIME WTD. AVG.	774	1.05	--	248	111	4.6	1280	8.1
TOT. LOAD (TONS)	27800	--	--	--	--	--	--	--

07242350 DEEP FORK RIVER NEAR ARCADIA, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED AMMONIA ORGANIC NITRO-GEN (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	PH (UNITS)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)
OCT.												
29...	29	--	--	4.9	.03	.10	1.5	13	--	15.0	7.5	1
NOV.												
19...	31	--	--	21	--	.41	7.6	17	--	15.0	6.9	0
DEC.												
10...	23	--	--	3.6	.03	.10	15	38	--	9.9	7.5	3
JAN.												
22...	25	--	10	46	.00	.02	.91	14	--	20.0	17	5
FEB.												
10...	23	--	--	62	.18	.60	19	20	--	18.0	14	1
MAR.												
31...	31	--	--	.00	.15	.50	9.5	21	--	26.0	27	1
APR.												
22...	27	--	.88	3.9	.21	.70	10	23	--	18.0	15	2
MAY												
26...	16	--	--	.20	--	1.7	18	14	--	16.0	22	2
JUNE												
23...	36	--	--	1.0	--	1.1	6.1	8.5	--	12.0	9.9	0
JULY												
29...	42	--	--	1.1	--	1.5	5.2	6.0	--	23.0	14	22
AUG.												
27...	10	--	.16	.70	1.2	4.0	4.5	23	8.0	15.0	12	--
SEP.												
30...	34	230	.25	1.1	.73	2.4	4.3	11	--	14.0	5.0	6

ANALYSES OF PESTICIDES AND MINOR AND TRACE CONSTITUENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALDRIN (UG/L)	CHLOR-DANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)	HEPTA-CHLOR EPOXIDE (UG/L)
OCT.									
29...	.00	.0	.01	.00	.01	.04	.00	.00	.00
NOV.									
19...	.00	.0	.00	.00	.00	.01	.00	.00	.00
DEC.									
10...	.00	.0	.01	.00	.00	.02	.00	.00	.00
JAN.									
22...	.00	.1	.01	.00	.02	.03	.00	.00	.00
FEB.									
10...	.00	.1	.02	.00	.02	.03	.02	.00	.00
MAR.									
31...	.00	.2	.03	.00	.01	.03	.00	.00	.00
APR.									
22...	--	--	--	--	--	--	--	--	--
MAY									
26...	.00	.1	.00	.00	.00	.03	.00	.00	.00
JUNE									
23...	.00	.1	.01	.00	.02	.04	.00	.00	.00
JULY									
29...	.00	.0	.00	.00	.00	.02	.00	.00	.00
AUG.									
27...	.00	.1	.00	.00	.00	.02	.00	--	.00
SEP.									
30...	.00	.1	.00	.00	.00	.04	.00	.00	.00

07242350 DEEP FORK RIVER NEAR ARCADIA, OKLA.--Continued

ANALYSES OF PESTICIDES AND MINOR AND TRACE CONSTITUENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)	TOTAL IRON (FE) (UG/L)
OCT.									
29...	.00	.00	.04	.00	.11	.00	.00	.00	--
NOV.									
19...	.00	.00	.03	.00	.00	.00	--	.00	--
DEC.									
10...	.05	.00	.08	.00	.00	.00	.00	.00	--
JAN.									
22...	3.0	.07	.04	.00	.00	.00	.00	.00	160
FEB.									
10...	.04	.00	.03	.00	--	.00	.00	.00	--
MAR.									
31...	.06	.14	.06	.02	.50	.00	.00	.00	--
APR.									
22...	--	.00	.00	.00	.31	.00	.00	.00	--
MAY									
26...	.04	.00	.01	.01	.40	.00	.00	.00	--
JUNE									
23...	.05	.00	.15	.04	.09	.00	.00	.00	--
JULY									
29...	.00	.00	.16	.02	--	--	--	--	--
AUG.									
27...	.00	.00	.01	.00	--	--	--	--	--
SEP.									
30...	.06	.05	.01	.04	--	--	--	--	--

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT.								
29...	--	480	0	30	6	--	40	10
NOV.								
19...	--	--	--	--	--	--	--	--
DEC.								
10...	--	--	0	--	--	--	--	--
JAN.								
22...	340	380	0	15	5	0	--	0
FEB.								
10...	--	--	--	--	--	--	--	--
MAR.								
31...	--	340	4	0	10	0	10	20
APR.								
22...	--	--	--	--	--	--	--	--
MAY								
26...	--	--	--	--	--	--	--	--
JUNE								
23...	--	290	0	4	13	4	--	10
JULY								
29...	--	--	--	--	--	--	--	--
AUG.								
27...	--	--	--	--	--	--	--	--
SEP.								
30...	--	280	--	3	15	3	--	20

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT.					
29...	1500	8.1	15.0	9.5	101
NOV.					
19...	1340	8.0	11.5	9.0	90
DEC.					
10...	1460	7.8	14.5	8.9	94
JAN.					
22...	1650	7.8	6.5	9.4	82
FEB.					
10....	1360	8.1	6.0	11.8	102
MAR.					
31...	1030	8.2	14.0	12.0	126
APR.					
22...	1190	8.1	18.0	7.4	85
MAY					
26...	1390	8.1	28.0	7.2	97
JUNE					
23...	950	7.9	28.0	6.5	87
JULY					
29...	900	7.8	25.0	6.8	87
AUG.					
27...	1490	8.0	30.0	8.1	111
SEP.					
30...	1400	7.9	22.0	7.0	85

07242350 DEEP FORK RIVER NEAR ARCADIA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	---	1340	1430	1370	1360	1430	1320	640	324	---	1440
2	1470	1650	1290	1350	1310	1520	1380	---	1010	413	1060	1440
3	---	1360	1340	768	1310	1440	1380	1330	485	1340	1440	1390
4	1440	1490	1340	778	1320	1500	---	1330	762	---	1400	1390
5	1390	1360	1540	1020	1380	1470	1300	1360	981	1390	1470	765
6	471	1400	---	1210	1380	1440	1320	1360	---	1350	1460	---
7	868	1340	1360	1260	---	---	1250	1330	1260	1360	1360	768
8	414	---	1360	1300	1360	1390	1290	1350	483	1360	---	1370
9	650	1350	1350	1350	1370	1390	1310	---	648	1360	1360	1500
10	1020	1400	1320	---	1300	1410	1290	1040	694	1360	1320	1450
11	---	1330	1320	1360	1360	1520	---	1120	1000	---	1380	1450
12	1300	1360	1260	1380	1340	1520	1300	1320	950	1360	606	---
13	1430	1300	---	1370	1290	1520	1370	1320	---	1430	926	1440
14	1420	842	1370	1380	---	---	1390	1340	1080	1430	1040	1470
15	1500	---	1430	1370	1330	1510	1300	1330	1250	1440	---	1500
16	1480	1170	1300	1390	1250	1510	1360	---	1240	1460	968	1480
17	1450	1320	1310	---	1370	1520	---	1340	1350	1590	1170	1160
18	---	1320	1300	1340	1340	1540	1280	1340	1370	---	1260	374
19	1400	1300	1310	1410	1090	1540	1290	1370	1480	1500	1280	---
20	1420	1230	---	1340	1440	1460	1230	1340	---	1460	1320	1060
21	1390	---	1240	1380	---	---	1220	1330	424	1460	1330	1240
22	1420	1250	1340	1330	768	1400	1280	1460	494	1460	---	1380
23	1380	1270	1370	1400	1430	1460	1240	---	994	1340	1260	1350
24	1520	1310	1440	---	790	1570	1280	1070	1260	842	1370	794
25	---	1380	---	1310	779	1420	---	1310	1330	---	1470	486
26	1350	---	1310	1320	816	1420	1300	1310	1370	1310	1420	---
27	1400	1390	---	1320	---	1390	1320	934	---	875	1380	1140
28	1440	1380	1260	1360	---	---	1360	1190	1360	978	1460	1260
29	1400	---	1330	1360	---	1350	1290	1270	1430	964	---	1320
30	1440	1290	1280	1370	---	1370	1280	---	1420	1270	1410	1390
31	1470	---	1390	---	---	1420	---	766	---	1390	1390	---
MONTH	1290	1320	1340	1290	1240	1460	1310	1260	1030	1250	1280	1220

07242350 DEEP FORK RIVER NEAR ARCADIA, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	---	14.0	---	4.0	7.0	12.0	18.0	22.0	23.0	---	25.0
2	20.0	10.0	10.0	---	8.0	5.0	11.0	---	23.0	25.0	23.0	26.0
3	---	8.0	14.0	11.0	6.0	2.0	13.0	17.0	22.0	23.0	24.0	26.0
4	19.0	8.0	9.0	3.0	9.0	9.0	---	16.0	24.0	---	24.0	26.0
5	20.0	8.0	10.0	1.0	6.0	9.0	10.0	20.0	24.0	24.0	24.0	27.0
6	22.0	11.0	---	0.0	4.0	8.0	9.0	20.0	---	24.0	24.0	---
7	24.0	13.0	8.0	1.0	---	---	11.0	19.0	24.0	28.0	24.0	27.0
8	13.0	---	10.0	3.0	0.0	6.0	13.0	18.0	22.0	28.0	---	27.0
9	12.0	11.0	12.0	4.0	2.0	10.0	15.0	---	22.0	28.0	24.0	27.0
10	14.0	9.0	14.0	---	8.0	8.0	19.0	18.0	23.0	28.0	26.0	25.0
11	---	9.0	6.0	6.0	8.0	12.0	---	20.0	23.0	---	26.0	25.0
12	15.0	8.0	4.0	4.0	7.0	14.0	17.0	16.0	24.0	28.0	25.0	---
13	15.0	10.0	---	8.0	4.0	14.0	16.0	15.0	---	28.0	24.0	23.0
14	15.0	8.0	7.0	8.0	---	---	14.0	17.0	24.0	27.0	24.0	23.0
15	13.0	---	8.0	3.0	6.0	12.0	17.0	18.0	25.0	27.0	---	23.0
16	11.0	6.0	4.0	10.0	11.0	14.0	18.0	---	25.0	27.0	24.0	19.0
17	13.0	7.0	6.0	---	8.0	11.0	---	18.0	27.0	27.0	25.0	18.0
18	---	9.0	8.0	7.0	14.0	12.0	18.0	18.0	26.0	---	26.0	17.0
19	14.0	12.0	6.0	6.0	12.0	8.0	20.0	17.0	27.0	27.0	26.0	---
20	14.0	8.0	---	8.0	8.0	8.0	17.0	19.0	---	22.0	25.0	15.0
21	15.0	---	6.0	12.0	---	---	18.0	20.0	24.0	23.0	26.0	16.0
22	18.0	9.0	8.0	6.0	3.0	10.0	18.0	21.0	27.0	25.0	---	18.0
23	18.0	4.0	5.0	6.0	9.0	9.0	17.0	---	27.0	25.0	27.0	18.0
24	11.0	3.0	2.0	---	6.0	9.0	17.0	18.0	27.0	26.0	27.0	17.0
25	---	4.0	---	8.0	8.0	10.0	---	19.0	26.0	---	26.0	18.0
26	18.0	---	5.0	7.0	11.0	11.0	19.0	21.0	26.0	26.0	26.0	---
27	14.0	3.0	---	5.0	---	14.0	19.0	19.0	---	24.0	27.0	23.0
28	11.0	---	5.0	7.0	---	---	16.0	19.0	27.0	24.0	27.0	23.0
29	12.0	---	5.0	8.0	---	12.0	15.0	18.0	26.0	25.0	---	23.0
30	13.0	15.0	6.0	7.0	---	13.0	14.0	---	25.0	22.0	25.0	23.0
31	12.0	---	5.0	---	---	13.0	---	22.0	---	22.0	24.0	---
MONTH	15.5	---	7.5	6.0	7.0	10.0	15.5	18.5	24.5	25.5	25.0	22.0

07243500 DEEP FORK NEAR BEGGS, OKLA.

LOCATION.--Lat 35°40'15", long 96°04'08", on line between secs.19 and 20, T.14 N., R.12 E., Okmulgee County, at gaging station at bridge on county road, 3.0 mi (4.8 km) downstream from Adams Creek, 4.0 mi (6.4 km) south of Beggs, 8.0 mi (12.9 km) from Flat Rock (Checkerboard) Creek, and at mile 85.0 (136.8 km).

DRAINAGE AREA.--2,018 sq mi (5,226.6 km^2).

PERIOD OF RECORD.--Chemical analyses: November 1951 to current year.
Water temperatures: November 1951 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
OCT.								
01-06	1120	35	92	0	17	52	2.7	.51
07-12	2560	17	40	0	9.0	26	2.1	.35
13-16	2590	20	74	0	14	28	1.9	.37
17-22	788	33	104	0	17	49	1.4	.65
23-30	3260	16	42	0	7.4	28	1.2	2.0
31...	2550	31	88	0	13	54	1.4	.80
NOV.								
01...	1520	22	70	0	13	36	1.6	.40
02-10	596	47	112	0	21	82	1.4	.20
11-21	279	72	130	0	24	140	1.6	.30
22-30	116	93	170	4	29	170	2.2	.30
DEC.								
01-15	89	130	200	0	40	240	3.1	.18
16-31	83	160	204	0	44	290	1.6	.26
JAN.								
01-03	145	170	166	10	42	310	.30	.07
04-06	925	78	96	0	30	140	2.0	.28
07-08	228	70	80	0	24	120	1.7	.17
10-13	254	110	158	0	38	200	3.5	.82
14-20	243	99	154	0	42	170	4.2	1.3
21-31	121	130	188	0	49	230	2.6	.86
FEB.								
01-02	91	140	208	2	50	260	3.3	1.0
03-04	136	420	182	2	50	800	5.5	.80
05-09	520	93	106	0	36	160	3.1	.40
10-19	142	110	150	4	37	220	2.8	.50
20...	208	100	106	0	30	190	4.2	.40
21-28	1420	44	70	0	19	80	2.7	.20
MAR.								
01-03	536	73	130	2	46	120	4.5	.77
04-10	328	100	168	6	43	170	5.6	1.3
11-22	158	130	200	8	47	230	3.0	.74
23-31	87	170	224	6	53	300	1.8	.35
APR.								
01-12	64	190	232	0	42	350	1.8	2.0
13-22	75	210	244	0	44	400	2.8	.20
23...	186	270	152	6	67	550	1.8	.08
24-30	243	130	202	0	43	240	2.1	.24
MAY								
01-10	144	150	230	12	53	260	2.6	.40
11-20	86	170	222	12	48	310	3.1	.31
21-27	66	200	238	8	51	380	2.7	.27
28...	336	170	208	10	55	290	5.6	.62
29-31	341	65	96	0	21	120	2.6	.16
JUNE								
01-03	554	120	116	0	29	220	2.9	.18
04-05	1900	32	56	0	15	56	2.7	.23
06-12	1250	44	108	0	19	73	3.8	.51
13-17	2100	27	74	0	14	46	2.7	.38
18-23	545	50	192	0	22	84	4.1	.42
24-30	128	78	194	0	34	130	3.4	.40
JULY								
01-02	186	80	154	0	32	140	3.1	.31
03...	345	98	194	8	49	160	3.4	.55
04-08	418	38	108	0	18	60	3.1	.36
09-23	191	65	168	4	33	100	2.7	.45
24-25	806	37	62	0	14	64	2.4	.17
26-31	217	44	94	0	17	74	2.3	.17
AUG.								
01-10	121	74	132	0	28	130	2.3	.25
11-14	70	96	160	0	38	160	1.7	.21
15-17	140	71	122	0	22	130	1.8	.20
18...	119	110	134	0	23	220	2.8	.23
19-22	95	53	86	0	16	93	1.6	.18
23...	164	96	112	0	33	170	2.3	.23
24...	122	160	138	0	40	310	1.6	.17
25-31	53	110	172	0	49	170	1.7	.20

07243500 DEEP FORK NEAR BEGGS, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,720 mg/l Feb. 3-4; minimum, 115 mg/l Oct. 7-12.
Hardness: Maximum, 840 mg/l Apr. 1-12; minimum, 34 mg/l Sept. 5-8.
Specific conductance: Maximum daily, 2,880 micromhos Feb. 3; minimum daily, 106 micromhos Sept. 6.
Water temperatures: Maximum, 33.0°C on several days during July; minimum, 3.0°C Feb. 3.

Period of record.--Maximum, 5,340 mg/l Mar. 26, 1954, Jan. 11-17, 1955; minimum, 87 mg/l Sept. 27, 1955.
Hardness (1951-67, 1969-71): Maximum, 1,310 mg/l July 21, 1955; minimum, 16 mg/l Sept. 27, 1955.
Specific conductance: Maximum daily, 10,500 micromhos Jan. 12, 1955; minimum daily, 113 micromhos May 27, 1957.
Water temperatures: Maximum, 38.5°c Aug. 8, 1970; minimum (1951-69, 1971), freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-06	217	.30	656	90	15	1.6	369	8.1
07-12	115	.16	795	42	9	1.1	179	7.8
13-16	155	.21	1080	70	9	1.0	245	8.1
17-22	218	.30	464	100	15	1.4	375	8.3
23-30	118	.16	1040	46	12	1.0	183	7.8
31...	210	.29	1440	90	18	1.4	342	8.2
NOV.								
01...	163	.22	669	72	15	1.1	252	8.0
02-10	283	.38	455	120	28	1.9	496	8.1
11-21	386	.52	291	170	63	2.4	703	8.3
22-30	490	.67	153	220	74	2.7	891	8.4
DEC.								
01-15	652	.89	157	270	106	3.4	1170	8.0
16-31	738	1.00	165	290	123	4.1	1310	8.3
JAN.								
01-03	747	1.02	292	270	117	4.5	1340	8.6
04-06	385	.52	262	130	51	3.0	666	7.7
07-08	319	.43	193	110	44	2.9	538	8.0
10-13	549	.75	376	210	80	3.3	960	8.1
14-20	513	.70	336	200	74	3.0	883	8.2
21-31	652	.89	213	250	96	3.6	1120	8.1
FEB.								
01-02	713	.97	175	280	106	3.6	1210	8.4
03-04	1720	2.34	632	440	287	8.7	2840	8.4
05-09	471	.64	661	160	73	3.2	793	8.3
10-19	614	.84	235	230	100	3.2	1010	8.4
20...	508	.69	285	170	83	3.3	838	8.3
21-28	244	.33	935	96	39	2.0	418	7.7
MAR.								
01-03	381	.52	551	160	50	2.5	696	8.4
04-10	512	.70	453	220	72	2.9	913	8.6
11-22	650	.88	277	270	93	3.4	1160	8.6
23-31	784	1.07	184	320	126	4.1	1420	8.5
APR.								
01-12	898	1.22	155	840	650	2.9	1560	8.1
13-22	984	1.34	199	370	170	4.8	1710	8.3
23...	1270	1.73	638	410	275	5.8	2160	8.4
24-30	660	.90	433	270	104	3.4	1160	8.3
MAY								
01-10	751	1.02	292	300	91	3.8	1290	8.7
11-20	808	1.10	188	320	118	4.1	1440	8.7
21-27	906	1.23	161	360	151	4.6	1650	8.5
28...	788	1.07	715	300	113	4.3	1380	8.7
29-31	324	.44	298	120	41	2.6	591	7.8
JUNE								
01-03	543	.74	812	180	85	3.9	963	8.3
04-05	175	.24	898	76	30	1.6	307	7.7
06-12	244	.33	824	110	21	1.8	428	7.9
13-17	165	.22	936	80	19	1.3	289	7.5
18-23	300	.41	441	200	42	1.5	525	8.3
24-30	430	.58	149	200	41	2.4	771	8.3
JULY								
01-02	432	.59	217	180	54	2.6	764	8.3
03...	536	.73	499	230	58	2.8	938	8.6
04-08	244	.33	275	110	21	1.6	408	8.1
09-23	376	.51	194	170	26	2.2	662	8.4
24-25	217	.30	472	72	21	1.9	346	7.9
26-31	249	.34	146	100	23	1.9	434	7.7
AUG.								
01-10	399	.54	130	150	42	2.6	687	8.3
11-14	499	.68	94.0	190	59	3.0	861	8.2
15-17	378	.51	143	140	40	2.6	676	8.3
18...	551	.75	119	190	80	3.5	967	8.3
19-22	276	.38	71.0	96	25	2.4	483	7.6
23...	456	.62	202	150	58	3.4	792	8.3
24...	764	1.04	252	250	137	4.4	1300	8.3
25-31	533	.72	76.3	200	59	3.4	926	7.9

07243500 DEEP FORK NEAR BEGGS, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)
SEP.								
01-04	290	130	192	4	59	200	2.2	.24
05-08	3860	19	24	0	12	32	1.8	.18
09-15	507	26	42	0	11	46	1.2	.15
16-18	246	96	62	0	15	180	1.5	.08
19-20	1320	31	44	0	11	56	1.6	.17
21-24	418	51	60	0	25	90	1.6	.13
25-26	2000	25	40	0	14	41	1.6	.16
27-30	774	41	74	0	22	65	1.9	.20
WTD. AVG.	--	47	87	1	19	82	2.2	.59
TIME WTD. AVG.	522	99	150	2	33	178	2.5	.48
TOT. LOAD (TONS)	--	24300	44600	288	9940	42100	1150	302

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	252	1100	1310	1230	619	1470	1290	882	787	538	991
2	348	425	1150	---	1210	700	1480	1240	1140	716	578	1010
3	379	414	1090	1320	2880	769	---	1280	853	913	559	1020
4	398	433	1090	626	2850	811	1530	1270	293	405	647	1130
5	412	433	---	695	734	930	1490	1220	293	401	795	228
6	330	469	1180	690	830	942	1520	1230	402	318	760	106
7	---	501	1160	484	840	934	1560	1320	310	389	812	154
8	175	574	1130	593	783	947	1630	1360	410	469	787	198
9	158	565	1160	---	709	969	1660	1340	450	502	650	208
10	156	594	1160	915	879	---	---	1400	496	554	716	232
11	160	620	---	812	870	1050	1620	1530	495	596	803	215
12	183	630	---	1060	986	1050	1670	1370	505	650	833	234
13	207	668	1210	1060	1040	1130	1730	1360	---	614	846	260
14	234	---	1240	790	1000	1100	1700	1280	352	623	939	258
15	249	832	1240	789	1050	1130	1720	1460	279	708	668	271
16	263	628	1270	---	1140	1150	1690	1640	249	654	644	---
17	293	629	1270	892	1040	1170	1700	1580	279	702	708	887
18	321	749	1360	925	1030	1180	1760	1450	396	677	967	542
19	349	652	1310	925	1130	1210	1760	1380	483	688	437	244
20	378	637	1320	964	838	---	1840	1420	515	706	407	315
21	428	708	1330	1030	419	1250	1640	1510	574	722	595	434
22	425	890	1330	1040	---	1280	1640	1600	609	740	---	382
23	190	887	1340	---	383	1350	2160	1520	603	751	782	408
24	181	824	1350	1050	360	1410	---	1590	668	387	1290	501
25	177	825	1290	1110	428	1360	1420	1680	728	289	849	249
26	190	851	1260	1140	392	1360	1040	1980	751	427	861	216
27	176	870	1240	1170	---	1470	1190	1680	767	496	901	314
28	169	---	---	1140	504	1480	1040	1380	777	373	952	326
29	155	945	1340	1150	---	1450	1090	630	800	460	954	405
30	---	1020	1430	1190	---	1460	1160	497	844	457	975	374
31	342	---	1310	---	---	1500	---	638	---	357	997	---
MONTH	266	662	1250	957	983	1140	1550	1360	559	566	775	418

07243500 DEEP FORK NEAR BEGGS, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
SEP.								
01-04	586	.80	459	230	66	3.7	1050	8.4
05-08	125	.17	1300	34	14	1.4	173	7.6
09-15	148	.20	202	52	18	1.6	242	7.9
16-18	403	.55	268	110	59	4.0	723	7.8
19-20	175	.24	624	56	20	1.8	288	7.6
21-24	238	.32	269	86	37	2.4	430	8.0
25-26	145	.20	783	54	21	1.5	235	7.4
27-30	206	.28	4300	82	21	2.0	370	7.6
WTD. AVG.	261	.36	--	107	34	1.8	445	7.9
TIME WTD. AVG.	498	.68	--	214	87	2.9	872	8.2
TOT. LOAD (TONS)	134000	--	--	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	12.5	14.0	8.0	5.0	10.5	16.5	23.0	26.0	27.0	25.0	28.0
2	23.0	11.0	14.0	---	4.5	7.0	17.0	21.0	26.0	28.0	25.0	28.0
3	22.0	12.0	13.0	7.0	3.0	7.5	---	21.0	23.0	33.0	25.0	29.0
4	23.0	11.5	12.5	6.0	5.0	10.0	13.5	23.0	24.0	31.0	27.0	30.0
5	20.0	10.5	---	5.0	8.0	11.5	12.0	22.0	27.0	30.0	28.0	29.0
6	22.5	16.0	8.0	5.5	6.0	11.0	14.0	26.0	27.0	32.0	26.0	27.0
7	---	12.0	9.0	3.5	3.5	12.0	14.0	23.0	28.0	32.0	27.0	29.0
8	17.0	13.0	11.0	4.0	4.0	10.5	17.0	23.0	24.0	32.0	28.0	32.0
9	17.5	12.5	12.5	---	3.5	9.5	19.0	21.0	27.0	32.0	28.0	28.0
10	17.0	12.5	13.0	7.0	6.5	---	---	22.0	28.0	33.0	31.0	31.0
11	15.0	12.0	---	6.5	7.0	13.5	22.0	22.0	27.0	31.0	28.0	28.0
12	17.0	12.0	---	5.0	5.0	17.0	23.0	21.0	28.0	33.0	27.0	27.0
13	26.5	9.5	9.0	4.5	5.5	16.5	16.0	25.0	---	33.0	26.0	28.0
14	25.0	12.5	9.0	5.0	7.0	17.5	20.0	23.0	23.0	33.0	27.0	28.0
15	16.5	9.5	7.5	5.5	8.0	17.0	22.0	24.0	27.0	33.0	27.0	26.0
16	14.0	8.0	9.5	---	12.0	16.5	23.0	24.0	27.0	31.0	27.0	---
17	14.0	8.5	10.0	7.5	11.5	15.0	23.0	23.0	29.0	32.0	30.0	19.0
18	17.5	11.0	12.0	4.5	12.0	13.5	21.0	25.0	30.0	32.0	29.0	17.0
19	16.0	11.5	7.5	4.0	12.0	13.0	23.0	23.0	28.0	27.0	28.0	17.0
20	17.5	9.5	8.0	4.5	7.0	---	20.0	25.0	27.0	30.0	29.0	17.0
21	18.0	10.0	11.0	7.0	4.5	15.5	22.0	25.0	29.0	31.0	27.0	19.0
22	23.5	9.0	12.0	8.0	---	13.0	19.0	23.0	31.0	27.0	---	19.0
23	17.0	9.0	8.5	---	7.0	13.5	18.0	23.0	30.0	25.0	30.0	18.0
24	17.5	7.5	8.0	9.0	7.5	11.0	---	23.0	32.0	27.0	31.0	18.0
25	18.0	9.5	7.5	9.5	11.0	13.0	23.0	26.0	31.0	27.0	31.0	22.0
26	18.0	12.0	8.5	9.0	11.0	15.0	22.0	27.0	31.0	26.0	30.0	22.0
27	16.5	10.5	7.0	9.0	---	15.5	23.0	27.0	32.0	28.0	31.0	24.0
28	15.0	---	---	8.5	10.0	14.0	21.0	23.0	31.0	27.0	27.0	25.0
29	16.0	13.0	8.5	12.0	---	16.0	17.0	20.0	31.0	27.0	28.0	27.0
30	---	13.0	7.0	8.0	---	17.5	22.0	22.0	27.0	27.0	27.0	27.0
31	15.5	---	8.5	---	---	17.0	---	23.0	---	26.0	28.0	---
MONTH	18.5	11.0	10.0	6.5	7.0	13.5	19.5	23.5	28.0	30.0	28.0	25.0

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.
(Irrigation network station)

LOCATION.--Lat 35°15'45", long 95°14'19", in SE1/4SE1/4 sec.12, T.9 N., R.19 E., Haskell County, at gaging station at bridge on State Highway 2, 0.8 mi (1.3 km) north of Whitefield, 5.5 mi (8.8 km) upstream from Taleka (Snake) Creek, 8.2 mi (13.2 km) downstream from Eufaula Dam, and at mile 18.8 (30.2 km).

DRAINAGE AREA.--47,576 sq mi (123,221.8 km^2), of which 9,700 sq mi (25,123 km^2) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: September 1944 to February 1945, September 1946 to September 1964, October 1966 to current year.
Water temperatures: September 1944 to February 1945, September 1946 to September 1964, October 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)
OCT.								
01-05	265	47	90	4	27	73	.00	.00
06-25	8920	44	96	0	27	73	.80	.05
26-27	13100	34	82	0	19	56	.00	.00
28-31	35000	42	88	2	18	74	.00	.01
NOV.								
01-10	18600	42	92	0	27	69	.60	.03
11-20	4930	41	92	0	23	65	1.0	.08
21-30	3310	42	84	6	25	66	.20	.00
DEC.								
01-15	8970	39	90	0	20	68	.60	.04
16-31	3090	39	56	14	20	66	.50	.01
JAN.								
01-13	2960	34	54	10	22	57	.00	.00
14-15	1920	24	50	10	15	39	.00	.00
16-31	2990	33	80	8	20	54	.00	.00
FEB.								
01-10	3640	36	78	10	18	60	.10	.00
11-21	3010	38	104	0	19	63	1.1	.06
22...	6730	28	70	0	15	44	1.4	.20
23-28	4090	35	90	0	18	60	1.0	.08
MAR.								
01-10	4060	38	102	0	23	59	.60	.07
11-20	2470	41	96	8	19	64	.20	.00
21-31	2260	40	102	0	21	67	.30	.00
APR.								
01-15	2030	41	84	0	22	69	.60	.00
16-30	2480	40	104	0	20	68	.30	.00
MAY								
01-15	1360	42	102	0	21	71	.00	.00
16-31	1820	42	112	0	20	70	.00	.00
JUNE								
01-10	2760	42	76	8	22	72	.10	.00
11-20	2600	40	74	10	21	73	.10	.13
21-30	3340	45	104	0	23	77	1.2	.07
JULY								
01-15	3360	45	52	8	22	78	.10	.04
16-31	3240	47	102	0	22	88	1.2	.08
AUG.								
01-10	1580	46	72	8	16	84	.20	.01
11-20	3100	48	114	0	21	88	1.1	.06
21-31	3950	51	114	0	22	90	.80	.07
SEP.								
01-10	3710	51	108	0	21	90	1.4	.12
11-20	2500	50	116	2	20	89	1.4	.11
21-30	4170	54	116	2	23	94	.30	.06
WTD. AVG.	--	42	91	2	22	71	.53	.04
TIME WTD. AVG.	4330	42	91	3	21	72	.50	.04
TOT. LOAD (TONS)	--	179000	388000	9960	94100	304000	2270	163

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.
(Irrigation network station)

EXTREMES, Current year.--Dissolved solids: Maximum, 303 mg/1 Sept. 21-30; minimum, 106 mg/1 Jan. 14-15.
Hardness: Maximum,130 mg/1 Aug. 11-20, Sept. 11-20, 21-30; minimum, 72 mg/1 Jan. 14-15.
Specific conductance: Maximum daily, 529 micromhos Sept. 21-30; minimum daily,266 micromhos Jan. 14-15.
Water temperatures: Maximum, 27.5°C July 6, Sept. 7; minimum, 6.0°C Feb. 10-11.

Period of record.--Dissolved solids: Maximum, 15,000 mg/1 Nov. 10-11, 1957; minimum, 67 mg/1 Oct. 12-13, 1969.
Hardness: Maximum, 3,080 mg/1 Nov. 10, 1956; minimum, 18 mg/1 Feb. 17, 1948.
Specific conductance: Maximum daily, 22,900 micromhos Nov. 11, 1956; minimum daily, 71.7 micromhos Jan. 2, 1948.
Water temperatures: Maximum, 31.0°c Sept. 4, 1944; minimum, freezing point on many days during winter period.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-05	248	.34	177	100	19	2.0	452	8.6
06-25	257	.35	6190	110	31	1.8	451	8.2
26-27	204	.28	7220	90	23	1.6	363	8.2
28-31	245	.33	23200	100	24	1.8	433	8.4
NOV.								
01-10	247	.34	12400	100	25	1.8	432	8.1
11-20	234	.32	3110	100	25	1.8	412	8.0
21-30	235	.32	2100	100	21	1.8	410	8.8
DEC.								
01-15	236	.32	5720	100	26	1.7	417	7.8
16-31	209	.28	1740	94	25	1.8	383	9.0
JAN.								
01-13	206	.28	1650	86	25	1.6	351	9.2
14-15	160	.22	829	72	14	1.2	266	9.1
16-31	223	.30	1800	98	19	1.5	364	8.8
FEB.								
01-10	238	.32	2340	100	19	1.6	434	9.0
11-21	225	.31	1830	110	25	1.6	407	8.3
22...	173	.24	3140	76	19	1.4	286	8.1
23-28	222	.30	2450	100	26	1.5	376	8.1
MAR.								
01-10	226	.31	2480	100	16	1.7	394	8.0
11-20	256	.35	1710	110	18	1.7	411	8.7
21-31	233	.32	1420	110	26	1.7	414	8.3
APR.								
01-15	245	.33	1340	110	41	1.7	415	8.3
16-30	242	.33	1620	110	25	1.7	423	8.0
MAY								
01-15	235	.32	863	110	26	1.7	430	8.3
16-31	239	.33	1170	120	28	1.7	441	8.1
JUNE								
01-10	227	.31	1690	100	24	1.8	421	8.8
11-20	244	.33	1710	110	33	1.7	436	9.1
21-30	262	.36	2360	120	35	1.8	462	8.3
JULY								
01-15	241	.33	2190	84	28	2.1	409	9.3
16-31	274	.37	2400	120	36	1.9	478	8.2
AUG.								
01-10	251	.34	1070	100	28	2.0	449	8.9
11-20	286	.39	2390	130	36	1.8	508	8.1
21-31	286	.39	3050	130	36	1.9	513	8.0
SEP.								
01-10	287	.39	2880	120	31	2.0	505	8.3
11-20	298	.41	2010	130	32	1.9	513	8.4
21-30	303	.41	3410	130	32	2.1	529	8.4
WTD. AVG.	246	.34	--	106	27	1.8	431	8.3
TIME WTD. AVG.	245	.33	--	107	27	1.8	431	8.4
TOT. LOAD (TONS)	1048000	--	--	--	--	--	--	--

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	OXYGEN CONSUMED (UNFILTERED) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)
OCT.			
29...	37200	3.9	.7
DEC.			
22...	2710	3.1	.8
JAN.			
20...	5740	4.0	.6
FEB.			
02...	1390	4.1	.6
MAR.			
17...	6480	4.6	.6
APR.			
07...	5820	4.7	.6
MAY			
12...	503	3.2	.4
JUNE			
02...	5880	4.8	.8
JULY			
14...	1680	3.7	.5
AUG.			
18...	305	3.3	1.1
SEP.			
08...	920	2.9	.1

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALDRIN (UG/L)	CHLORDANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DIELDRIN (UG/L)	ENDRIN (UG/L)	HEPTACHLOR (UG/L)	HEPTACHLOR EPOXIDE (UG/L)
NOV.									
30...	.00	.0	.00	.00	.00	.00	.00	.00	.00
DEC.									
22...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JAN.									
20...	.00	.0	.00	.00	.00	.00	.00	.00	.00
FEB.									
02...	.00	.0	.00	.00	.00	.00	.00	.00	.00
APR.									
20...	.00	.0	.00	.00	.00	.00	.00	.00	.00
MAY									
12...	.00	.0	.00	.00	.00	.00	.00	.00	.00
JULY									
14...	.00	.0	.00	.00	.00	.00	.00	.00	.00
AUG.									
18...	.00	.0	.00	.00	.00	.00	.00	.00	.00
SEP.									
08...	.00	.0	.00	.00	.09	.00	.00	.00	.00

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)
NOV.								
30...	.00	.00	.00	.00	.00	.00	.00	.00
DEC.								
22...	.00	.00	.02	.00	.00	.00	.00	.00
JAN.								
20...	.00	.00	.03	.00	.00	.00	.00	.00
FEB.								
02...	.01	.00	.02	.00	.00	.00	.00	.00
APR.								
20...	.00	.00	.01	.00	.01	.00	.00	.00
MAY								
12...	.00	.00	.01	.00	.00	.00	.00	.00
JULY								
14...	.00	.00	.00	.00	.00	.00	.00	.00
AUG.								
18...	.00	.00	.00	.00	.00	.00	.00	.00
SEP.								
08...	.00	.00	.02	.00	.00	.00	.00	.00

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT.				
29...	440	18.0	9.2	101
DEC.				
22...	465	13.0	9.6	97
JAN.				
20...	365	6.5	11.8	100
FEB.				
02...	390	4.0	11.6	92
MAR.				
17...	--	10.0	10.0	92
APR.				
07...	400	12.5	10.4	102
20...	420	14.5	--	--
MAY				
12...	500	19.0	8.2	93
JUNE				
02...	450	20.0	8.0	92
JULY				
14...	500	27.5	7.2	93
AUG.				
18...	480	27.0	7.8	100
SEP.				
08...	500	30.0	6.2	84

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	466	419	431	409	425	408	444	459	458	503	505
2	500	422	401	438	374	362	410	496	444	465	516	504
3	523	425	414	310	377	340	415	444	399	478	494	520
4	533	407	443	240	360	355	440	422	446	469	486	530
5	540	423	398	344	371	400	420	416	455	484	558	482
6	477	444	362	375	375	383	405	426	456	467	479	472
7	475	441	400	361	376	422	418	429	454	458	492	503
8	443	472	384	382	444	449	411	431	466	474	472	493
9	462	405	401	370	395	430	422	471	489	462	490	559
10	464	439	414	421	359	398	436	499	478	422	486	550
11	467	405	430	421	437	400	471	437	453	488	486	585
12	467	409	402	399	420	410	447	448	449	461	479	528
13	466	405	399	372	400	412	416	490	454	467	492	547
14	461	399	397	332	459	417	428	432	438	481	488	569
15	440	410	396	300	409	426	412	443	430	477	514	559
16	465	407	396	349	322	428	425	479	450	452	529	521
17	461	419	392	420	390	400	422	436	450	521	530	478
18	415	416	398	350	382	398	462	425	456	488	469	481
19	431	413	392	345	370	416	486	439	458	459	505	489
20	428	413	395	358	408	432	420	452	483	490	508	495
21	423	407	402	370	422	439	418	437	471	468	539	543
22	456	417	399	370	295	407	416	438	468	490	506	562
23	426	520	380	362	353	402	396	446	453	510	523	544
24	433	395	400	391	365	415	414	346	461	521	526	532
25	416	407	401	420	367	404	444	417	466	487	501	561
26	345	396	520	350	371	414	431	442	455	471	509	539
27	394	400	392	470	376	408	419	452	459	490	501	539
28	384	400	423	371	425	420	405	447	462	489	493	521
29	458	391	401	368	---	417	411	494	453	495	512	522
30	461	439	384	380	---	422	417	503	471	492	546	520
31	442	---	394	370	---	434	---	498	---	500	497	---
MONTH	451	420	405	372	386	409	424	448	456	479	504	525

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	18.0	---	11.0	---	---	12.5	19.0	23.0	23.0	23.0	25.0
2	---	18.0	---	9.0	---	---	12.5	21.5	20.5	24.0	24.0	25.0
3	---	18.0	---	---	---	---	13.0	17.5	22.0	26.0	22.5	25.0
4	---	---	12.5	---	---	---	13.0	16.0	22.0	28.5	---	26.5
5	---	---	12.5	---	---	---	11.5	18.5	23.0	28.5	---	26.5
6	---	---	11.5	---	---	---	11.5	18.5	25.0	27.5	22.5	26.0
7	---	---	12.5	---	---	---	12.5	18.5	24.0	23.5	---	27.5
8	---	---	12.5	---	---	---	12.0	19.5	21.5	23.0	---	26.0
9	---	---	12.5	---	---	---	12.5	19.5	25.5	23.5	---	25.5
10	---	---	13.0	---	6.0	8.0	15.5	18.0	26.5	24.0	---	25.5
11	---	---	---	---	6.0	9.0	18.5	21.0	23.5	26.5	---	26.0
12	---	---	---	---	---	9.5	16.5	19.0	23.5	26.5	---	26.0
13	---	---	---	---	---	11.5	13.0	19.5	23.5	24.0	---	26.0
14	---	---	---	---	---	15.0	13.0	19.5	21.5	23.5	---	26.0
15	---	---	---	---	---	13.0	13.5	20.5	22.5	24.5	---	26.5
16	20.5	---	---	---	7.5	---	13.5	23.5	23.5	24.5	---	24.5
17	21.0	---	---	---	7.5	---	14.5	18.5	23.0	25.0	---	23.0
18	20.5	---	---	---	7.5	10.0	16.5	19.0	22.5	24.0	26.5	21.5
19	19.5	---	---	---	8.5	10.0	14.5	20.5	23.5	24.0	25.0	17.0
20	17.0	---	---	---	---	---	14.0	19.0	25.0	24.5	24.5	19.0
21	15.0	---	---	7.5	8.0	11.5	14.5	19.0	25.0	23.0	25.5	23.0
22	18.5	---	12.0	---	---	10.5	14.5	19.5	24.0	23.5	25.5	22.5
23	---	---	11.0	---	---	---	15.0	22.0	22.0	---	25.5	23.5
24	15.0	---	9.0	---	---	10.0	18.5	21.5	23.0	25.5	25.0	23.5
25	19.0	---	---	---	---	9.5	20.0	20.0	23.5	25.0	25.5	23.5
26	16.5	---	---	---	---	10.0	17.0	22.0	23.5	24.0	25.0	25.5
27	---	---	9.5	---	---	12.5	17.0	21.5	23.5	22.0	25.5	25.0
28	20.5	---	9.5	---	---	14.0	15.5	21.5	24.0	23.0	25.5	24.0
29	17.5	---	10.5	---	---	---	14.5	22.5	23.5	23.0	25.5	24.5
30	17.5	---	10.0	---	---	---	15.0	22.5	22.5	23.0	25.0	24.5
31	18.0	---	9.0	---	---	14.0	---	26.0	---	22.5	24.5	---
MONTH	---	---	---	---	---	---	14.5	20.0	23.5	24.5	---	24.5

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	20	20	20	20	20	21	21	21	23	23
2	23	20	19	21	18	18	20	23	21	22	23	23
3	24	20	20	16	18	17	20	21	19	22	23	24
4	24	19	21	13	18	18	21	20	21	22	22	24
5	24	20	19	17	18	19	20	20	21	22	25	22
6	22	21	19	18	18	19	19	20	21	22	22	22
7	22	21	19	18	18	20	20	20	21	21	23	23
8	21	22	19	19	21	21	20	20	22	22	22	23
9	21	19	19	18	19	20	20	22	22	21	22	25
10	22	21	20	20	18	19	21	23	22	20	22	25
11	22	19	20	20	21	19	22	21	21	22	22	24
12	22	20	19	19	20	20	21	21	21	21	22	24
13	22	19	19	18	19	20	20	22	21	22	23	25
14	21	19	19	17	21	20	20	20	21	22	22	25
15	21	20	19	16	20	20	20	21	20	22	23	25
16	22	19	19	17	16	20	20	22	21	21	24	24
17	21	20	19	20	19	19	20	21	21	24	24	22
18	20	20	19	17	19	19	21	20	21	22	22	22
19	20	20	19	17	18	20	21	21	21	21	23	22
20	20	20	19	18	20	20	20	21	22	22	23	23
21	20	19	19	18	20	21	20	21	22	22	24	24
22	21	20	19	18	15	19	20	21	22	22	23	25
23	20	24	18	18	18	19	19	21	21	23	24	24
24	20	19	19	19	18	20	20	17	21	24	24	24
25	20	19	19	20	18	19	21	20	22	22	23	25
26	17	19	24	17	18	20	20	21	21	22	23	24
27	19	19	19	22	18	20	20	21	21	22	23	24
28	17	19	20	18	20	20	19	21	21	22	23	24
29	21	19	19	18	---	20	20	23	21	23	23	24
30	21	21	19	18	---	20	20	23	22	23	25	24
31	21	---	19	18	---	20	---	23	---	23	23	---
MONTH	21	20	19	18	19	20	20	21	21	22	23	24

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	2180	91	9.7	151	293	66	24	259	83	12	322
2	5.2	1960	68	50	247	290	54	6.9	355	54	84	284
3	4.4	1600	144	49	254	255	37	156	165	22	163	297
4	4.2	941	177	149	162	256	11	156	277	20	192	129
5	47	769	45	254	189	167	170	59	199	7.1	117	46
6	186	792	84	284	96	40	167	150	69	198	38	52
7	187	799	555	306	51	7.5	152	112	110	320	30	190
8	203	796	694	262	216	243	126	34	27	379	6.4	353
9	561	267	712	53	194	309	48	6.8	5.3	348	142	371
10	476	204	740	10	266	218	13	169	93	212	187	312
11	523	156	735	38	266	172	5.0	41	146	52	231	201
12	848	199	682	162	191	232	125	63	138	236	196	23
13	817	261	642	211	42	76	238	18	85	346	208	200
14	132	256	836	126	7.8	11	271	109	171	348	78	416
15	152	254	824	44	211	30	151	40	93	315	7.6	192
16	804	244	700	28	242	133	190	5.7	121	260	123	64
17	799	271	486	8.7	216	182	36	276	191	173	211	238
18	731	399	325	15	178	199	8.6	215	263	165	225	74
19	747	277	119	286	194	214	268	54	202	238	281	7.9
20	534	286	53	294	57	55	215	210	67	191	342	218
21	433	82	120	225	83	69	142	199	60	252	201	266
22	303	57	212	151	280	182	202	24	70	335	217	332
23	382	161	135	30	279	265	159	9.8	218	302	447	306
24	531	247	66	12	293	152	29	143	267	105	397	380
25	722	247	20	280	352	243	8.0	225	238	66	289	123
26	757	241	30	237	211	194	281	51	239	193	276	9.0
27	506	241	26	171	42	42	96	147	215	152	232	223
28	1440	240	53	220	10	10	145	18	243	186	76	362
29	2030	70	73	200	---	107	86	6.1	203	252	12	356
30	2130	174	74	151	---	28	144	4.8	174	205	217	423
31	2060	---	57	57	---	40	---	4.2	---	58	378	---
MONTH	615	489	309	141	178	151	121	88	166	196	181	225

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	77	68	70	66	69	66	73	75	75	86	87
2	85	69	65	71	60	57	66	84	73	76	90	86
3	92	69	67	48	60	53	67	73	64	79	83	91
4	95	66	72	35	57	56	72	69	73	82	81	94
5	97	69	64	54	59	64	68	67	75	80	100	88
6	79	73	61	60	60	61	65	69	75	77	74	78
7	78	72	64	57	60	69	68	70	76	75	82	86
8	72	78	61	61	73	74	66	76	77	78	76	83
9	76	65	65	59	64	70	69	78	82	76	82	100
10	76	72	67	68	57	64	71	85	79	69	81	100
11	77	65	70	68	71	64	76	71	74	81	81	110
12	77	66	65	64	68	66	73	73	74	76	79	96
13	77	65	64	59	64	67	67	82	74	77	82	100
14	76	64	64	52	75	68	70	70	71	79	81	110
15	72	66	64	46	66	69	67	72	70	79	89	100
16	76	66	64	55	50	70	69	79	74	78	94	91
17	76	68	63	68	63	68	69	71	74	91	94	79
18	67	67	64	55	61	64	76	69	75	81	77	79
19	70	67	63	54	59	67	73	72	75	75	87	82
20	70	67	64	57	66	70	68	74	80	82	87	83
21	69	66	65	59	69	72	68	71	78	77	97	98
22	75	68	64	59	45	66	67	71	77	82	87	100
23	69	91	61	57	56	65	64	73	74	88	92	99
24	71	64	64	63	58	67	67	54	76	91	93	95
25	67	66	65	68	58	65	73	68	77	61	85	100
26	54	64	91	55	59	67	70	72	75	78	88	97
27	63	64	63	77	60	66	68	74	75	82	85	97
28	54	64	69	59	69	68	65	73	76	82	83	91
29	75	63	65	59	---	68	66	83	74	83	89	92
30	76	72	61	61	---	69	68	86	78	82	99	91
31	72	---	63	59	---	71	---	84	---	85	86	---
MONTH	75	68	65	59	62	66	69	74	75	80	86	93

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	7720	312	34	511	1010	223	85	914	294	46	1210
2	19	6700	227	173	405	933	183	26	1240	191	321	1060
3	17	5480	491	147	832	798	125	545	552	78	599	1150
4	16	3180	618	388	519	817	40	533	969	72	694	509
5	189	2630	151	800	614	560	581	282	701	25	481	166
6	665	2760	276	927	313	131	563	514	244	703	137	165
7	666	2780	1860	984	167	26	520	386	388	1130	110	712
8	706	2840	2290	861	755	850	427	118	95	1350	23	1290
9	1980	900	2390	173	648	1060	165	24	19	1230	517	1530
10	1690	708	2520	36	852	730	47	626	332	725	675	1270
11	1860	531	2530	129	922	578	18	143	513	188	834	863
12	3010	675	2290	541	653	786	438	220	482	834	702	91
13	2900	881	2150	686	141	257	810	65	297	1230	762	809
14	466	857	2790	391	27	37	934	378	594	1250	283	1750
15	528	861	2750	130	714	104	513	140	321	1130	29	792
16	2850	825	2340	89	740	457	653	20	424	912	482	249
17	2820	925	1620	30	717	611	125	956	671	669	832	850
18	2490	1360	1090	49	587	668	31	739	927	599	801	266
19	2580	942	394	901	630	730	938	187	711	838	1060	29
20	1840	971	177	963	192	190	734	738	241	696	1290	772
21	1480	277	403	731	285	240	485	689	214	896	805	1070
22	1070	195	710	490	818	549	688	83	248	1220	819	1380
23	1310	623	444	98	888	891	530	34	766	1150	1740	1240
24	1840	823	221	40	947	517	100	451	945	408	1550	1500
25	2460	833	69	957	1140	818	28	768	845	240	1080	511
26	2390	805	114	751	686	661	970	177	842	687	1040	36
27	1690	809	88	608	137	144	327	516	759	553	866	891
28	4530	808	181	715	36	35	487	63	861	676	277	1400
29	7170	232	246	648	---	365	291	22	714	926	47	1380
30	7530	606	246	895	---	97	489	18	618	748	679	1640
31	7180	---	190	196	---	138	---	15	---	215	1400	---
MONTH	2130	1680	1040	456	581	509	415	306	582	705	683	887

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	276	251	259	245	255	245	266	273	272	294	294
2	292	253	241	263	224	217	246	290	266	276	300	294
3	303	255	248	186	226	204	249	266	239	282	289	302
4	308	264	265	144	216	213	264	253	267	287	286	306
5	311	254	239	206	223	240	252	250	271	285	319	284
6	281	266	229	225	225	230	243	256	272	277	282	279
7	280	264	240	217	226	253	251	257	271	272	286	294
8	265	279	230	229	266	268	247	259	276	280	279	289
9	274	263	241	222	237	258	253	279	287	274	287	320
10	275	263	240	253	215	239	262	292	282	253	286	316
11	277	243	258	253	262	240	279	262	270	267	286	332
12	277	245	241	239	252	246	267	268	268	274	282	305
13	276	243	239	223	240	247	250	287	271	277	288	314
14	274	239	238	199	273	250	257	259	263	283	287	324
15	264	246	238	180	245	256	247	265	258	281	299	320
16	276	244	236	209	193	257	255	262	269	270	306	302
17	274	251	235	252	234	240	253	262	269	302	306	282
18	249	250	239	210	229	239	274	255	272	287	278	283
19	259	248	235	207	222	250	267	263	272	273	294	287
20	257	248	237	215	245	259	252	270	284	287	296	290
21	254	244	241	222	253	263	251	262	279	277	310	312
22	272	250	239	222	177	244	250	263	277	287	296	321
23	256	302	228	217	212	241	238	267	270	297	303	313
24	260	237	240	235	219	249	248	208	274	302	304	307
25	250	244	241	252	220	242	266	250	276	286	293	321
26	207	238	302	210	223	248	259	265	271	279	296	310
27	236	240	235	276	226	245	251	270	273	287	293	310
28	206	240	254	223	255	252	243	267	274	287	289	302
29	272	235	241	221	---	250	247	289	270	290	298	302
30	274	263	230	228	---	253	250	294	279	288	314	302
31	265	---	236	222	---	260	---	291	---	292	291	---
MONTH	268	252	243	223	232	245	254	267	271	282	296	304

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	27810	1150	124	1690	3710	826	310	3310	1070	159	4110
2	66	24750	845	636	3030	3530	677	89	4540	689	1070	3630
3	56	20240	1820	573	3130	3050	461	2000	2060	279	2090	3790
4	53	11800	2260	1610	1970	3100	145	1970	3540	252	2460	1650
5	604	9730	563	3050	2310	2090	2150	748	2550	91	1490	591
6	2360	10120	1030	3490	1180	491	2090	1900	887	2530	491	665
7	2380	10210	6930	3730	627	94	1920	1420	1410	4090	385	2430
8	2590	10170	6580	3230	2760	3100	1580	435	341	4840	82	4510
9	7160	3350	8900	653	2420	3920	608	86	67	4450	1820	4740
10	6090	2600	9320	132	3230	2720	172	2160	1190	2680	2390	4000
11	6690	1970	9330	476	3390	2150	68	527	1870	663	2950	2570
12	10830	2500	8530	2020	2420	2920	1600	802	1760	3020	2510	295
13	10440	3270	8020	2590	526	954	3000	230	1080	4420	2660	2550
14	1690	3190	10420	1500	99	138	3450	1390	2190	4450	998	5330
15	1960	3190	10260	510	2650	385	1900	512	1180	4630	98	2450
16	10270	3070	8720	337	2860	1680	2410	73	1550	3320	1570	823
17	10200	3420	6040	110	2680	2270	460	3520	2440	2210	2700	3040
18	9210	5030	4650	186	2200	2490	110	2730	3360	2110	2880	948
19	9500	3490	1470	3440	2370	2700	3430	688	2570	3040	3590	101
20	6770	3600	659	3570	714	699	2710	2690	859	2440	4370	2680
21	5480	1030	1500	2760	1050	882	1790	2530	767	3220	2570	3410
22	3870	723	2640	1050	3220	2040	2550	306	890	4280	2770	4250
23	4840	2060	1670	371	3370	3310	1980	125	2790	3860	5720	3920
24	6760	3070	823	150	3580	1920	370	1720	3420	1350	5080	4860
25	9100	3090	256	3540	4300	3040	102	2840	3040	850	3690	1580
26	9110	3060	379	2860	2580	2450	3570	649	3060	2470	3530	116
27	6290	3010	327	2180	517	533	1210	1880	2750	1940	2970	2850
28	17280	2990	670	2690	132	131	1810	229	3110	2380	967	4630
29	25970	868	916	2440	---	1350	1080	77	2600	3220	159	4550
30	27210	2230	921	1860	---	358	1810	62	2220	2620	2780	5410
31	26320	---	708	701	---	509	---	53	---	730	4840	---
MONTH	7790	6190	3860	1720	2190	1890	1540	1120	2110	2500	2320	2880

07246400 ROBERT S. KERR LOCK AND DAM NEAR SALLISAW, OKLA.

LOCATION.--Lat 35°21'57", long 94°46'43", in SE1/4SW1/4 sec. 8, T.10 N., R.24 E., Sequoyah County, from lock wall at dam, 0.4 mi (1.0 km) upstream from gage on bridge on U.S. Highway 59, 3.5 mi (5.6 km) downstream from Sans Bois Creek, 7.5 mi (12.1 km) south of Sallisaw, and at mile 395.4 (636.2 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESER-VOIR STORAGE (AC-FT)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)
OCT.			
06...	1800	5.3	3.6
NOV.			
10...	52280	4.5	2.2
DEC.			
08...	140200	4.9	1.5
FEB.			
02...	479900	4.1	1.0
16...	492000	2.7	.9
MAR.			
17...	485600	6.4	1.4
APR.			
20...	482500	4.5	1.9
MAY			
12...	475700	4.4	1.2
JUNE			
08...	465800	5.3	2.0
JULY			
07...	494900	4.8	2.4
AUG.			
24...	498500	5.7	1.2
SEP.			
08...	484100	5.3	1.4

07246400 ROBERT S. KERR LOCK AND DAM NEAR SALLISAW, OKLA.

DRAINAGE AREA.--147,750 sq mi (382,672.5 km^2), of which 22,241 sq mi (57,604.2 km^2) is probably noncontibuting.

PERIOD OF RECORD.--Chemical analyses: October 1969 to current year.

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT.					
06...	650	8.6	21.0	8.5	99
NOV.					
10...	340	8.2	16.0	8.7	92
DEC.					
08...	470	7.8	12.0	10.0	97
FEB.					
02...	390	--	3.0	12.8	98
16...	490	8.0	4.5	11.4	93
MAR.					
17...	580	7.9	13.0	11.1	109
APR.					
20...	850	8.0	20.0	9.8	112
MAY					
12...	--	7.8	19.0	9.0	102
JUNE					
08...	850	8.6	25.5	8.0	98
08...	--	--	23.5	6.2	76
08...	--	--	23.0	5.8	69
JULY					
07...	740	8.3	27.5	7.4	96
AUG.					
24...	560	8.6	28.0	6.5	86
24...	560	--	27.5	3.4	44
24...	560	--	27.0	1.3	17
SEP.					
08...	750	8.8	29.0	7.7	103
08...	750	--	27.5	4.9	64
08...	750	--	27.5	4.9	64

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.

LOCATION.--Lat 34°10'05", long 99°30'25", in NW1/4SE1/4 sec.15, T.8 N., R.22 W., Beckham County, at gaging station at bridge on State Highway 34, 3.0 mi (4.8 km) south of Carter, 10.8 mi (17.4 km) downstream from Timber Creek, and at mile 110.5 (177.8 km).

DRAINAGE AREA.--2,337 sq mi (6,052.8 km²), of which 399 sq mi (1,033.4 km²) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
FEB.									
28...	92	260	106	0	620	410	1.1	4.8	--
MAR.									
01...	51	250	90	0	570	370	.84	3.7	--
08...	8.0	280	72	0	880	370	.34	1.5	--
15...	1.8	260	112	0	970	310	.45	2.0	--
22...	.54	250	112	0	1300	310	2.9	13	--
23...	.44	260	134	0	1300	300	.09	.40	--
29...	.40	300	157	0	1000	370	.25	1.1	--
APR.									
22...	.44	350	120	0	1100	440	.07	.30	--
JUNE									
09...	690	48	122	6	190	94	.38	1.7	--
14...	218	180	158	4	450	230	1.1	4.7	--
16...	69	240	216	0	580	320	--	.30	.27
JULY									
05...	.86	47	124	4	170	62	.61	2.7	--
AUG.									
09...	68	11	118	6	38	12	1.2	5.3	--
14...	3.2	24	132	4	73	22	1.3	5.8	--
SEP.									
27...	24	200	124	0	460	340	1.4	6.4	--

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water years 1951 and 1958-60 (partial-record station), November 1961 to September 1962, July 1968 to current year.
Water temperatures: July 1968 to current year.

REMARKS.--No flow Oct. 1-Feb. 25, Apr. 1-19, Apr. 27-May 31, June 22-July 1, July 6-21, July 25-Aug. 7, Aug 12-13, Aug. 18-Sep. 16, Sep. 18-24.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
FEB. 28...	--	1780	2.42	442	790	700	4.0	2560	8.2
MAR. 01...	--	1620	2.20	223	640	570	4.3	2260	8.2
08...	--	2050	2.79	44.0	900	840	4.1	2670	8.0
15...	--	2140	2.91	10.4	1000	910	3.6	2730	8.2
22...	--	2300	3.13	3.40	1300	1200	3.0	3040	8.1
23...	4.3	2550	3.47	3.03	1300	1200	3.1	3100	7.1
29...	--	2240	3.05	2.40	1100	970	3.9	2990	8.2
APR. 22...	.32	2400	3.26	2.85	1100	1000	4.6	3210	8.3
JUNE 09...	--	534	.73	995	340	230	1.1	810	8.7
14...	--	1240	1.69	9.40	560	420	3.3	1770	8.5
16...	.83	1640	2.23	306	700	523	3.9	2240	8.3
JULY 05...	--	488	.66	1.10	260	150	1.3	724	8.4
AUG. 09...	--	206	.28	37.8	140	33	.4	315	8.5
14...	--	288	.39	2.50	170	55	.8	431	8.5
SEP. 27...	--	1400	1.90	90.7	680	580	3.3	1990	8.1

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
MAR. 23...	2850	--	13.0	10.0	103
APR. 22...	3200	8.5	27.0	9.0	118
JUNE 16...	2100	8.2	25.5	8.8	109

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	2230	---	---	---	---	---	---
2	---	---	---	---	---	2300	---	---	753	---	---	---
3	---	---	---	---	---	2230	---	---	1550	---	---	---
4	---	---	---	---	---	2490	---	---	1300	---	---	---
5	---	---	---	---	---	2400	---	---	985	696	---	---
6	---	---	---	---	---	2430	---	---	2190	---	---	---
7	---	---	---	---	---	2530	---	---	2140	---	---	---
8	---	---	---	---	---	2710	---	---	2270	---	---	---
9	---	---	---	---	---	2610	---	---	952	---	294	---
10	---	---	---	---	---	2600	---	---	1350	---	310	---
11	---	---	---	---	---	2110	---	---	838	---	402	---
12	---	---	---	---	---	2500	---	---	735	---	---	---
13	---	---	---	---	---	2530	---	---	1650	---	---	---
14	---	---	---	---	---	2600	---	---	1730	---	---	---
15	---	---	---	---	---	2660	---	---	2170	---	---	---
16	---	---	---	---	---	2750	---	---	2170	---	---	---
17	---	---	---	---	---	2730	---	---	2490	---	---	---
18	---	---	---	---	---	2970	---	---	2610	---	---	---
19	---	---	---	---	---	3000	---	---	2820	---	---	---
20	---	---	---	---	---	3110	---	---	3530	---	---	---
21	---	---	---	---	---	3000	---	---	3170	---	---	---
22	---	---	---	---	---	3040	3230	---	---	---	---	---
23	---	---	---	---	---	2980	3180	---	---	---	---	---
24	---	---	---	---	---	2990	3140	---	---	---	---	---
25	---	---	---	---	---	2960	3100	---	---	---	---	---
26	---	---	---	---	---	2910	3100	---	---	---	---	1580
27	---	---	---	---	3010	2860	---	---	---	---	---	1980
28	---	---	---	---	2650	3280	---	---	---	---	---	2080
29	---	---	---	---	---	2890	---	---	---	---	---	2120
30	---	---	---	---	---	2900	---	---	---	---	---	2170
31	---	---	---	---	---	3020	---	---	---	---	---	---
MONTH	---	---	---	---	---	2720	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	8.0	---	---	25.5	---	---	---
2	---	---	---	---	---	4.0	---	---	27.0	26.5	---	---
3	---	---	---	---	---	---	---	---	26.5	27.0	---	---
4	---	---	---	---	---	---	---	---	27.0	29.5	---	---
5	---	---	---	---	---	9.5	---	---	26.5	30.0	---	---
6	---	---	---	---	---	7.0	---	---	26.0	---	---	---
7	---	---	---	---	---	7.0	---	---	25.5	---	---	---
8	---	---	---	---	---	8.0	---	---	25.5	---	---	---
9	---	---	---	---	---	9.5	---	---	24.5	---	---	---
10	---	---	---	---	---	9.0	---	---	24.5	---	---	---
11	---	---	---	---	---	12.5	---	---	22.5	---	---	---
12	---	---	---	---	---	13.5	---	---	24.0	---	---	---
13	---	---	---	---	---	14.5	---	---	25.0	---	---	---
14	---	---	---	---	---	13.0	---	---	24.5	---	---	---
15	---	---	---	---	---	12.0	---	---	25.5	---	---	---
16	---	---	---	---	---	13.5	---	---	---	---	---	---
17	---	---	---	---	---	12.0	---	---	---	---	---	---
18	---	---	---	---	---	8.5	---	---	---	---	---	---
19	---	---	---	---	---	7.5	---	---	---	---	---	---
20	---	---	---	---	---	7.0	---	---	---	---	---	---
21	---	---	---	---	---	11.5	---	---	---	---	---	---
22	---	---	---	---	---	9.0	20.0	---	---	30.5	---	---
23	---	---	---	---	---	9.0	18.0	---	---	26.0	---	---
24	---	---	---	---	---	5.0	16.5	---	---	29.0	---	---
25	---	---	---	---	---	---	20.0	---	---	---	---	21.5
26	---	---	---	---	9.0	12.5	21.5	---	---	---	---	23.0
27	---	---	---	---	6.5	16.5	---	---	---	---	---	25.0
28	---	---	---	---	6.5	14.5	---	---	---	---	---	24.5
29	---	---	---	---	---	14.5	---	---	---	---	---	26.5
30	---	---	---	---	---	13.5	---	---	---	---	---	22.5
31	---	---	---	---	---	14.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	10.5	---	---	---	---	---	---

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	550	---	---	---	---	---	---
2	---	---	---	---	---	570	---	---	170	---	---	---
3	---	---	---	---	---	550	---	---	390	---	---	---
4	---	---	---	---	---	620	---	---	330	---	---	---
5	---	---	---	---	---	600	---	---	250	160	---	---
6	---	---	---	---	---	600	---	---	540	---	---	---
7	---	---	---	---	---	630	---	---	530	---	---	---
8	---	---	---	---	---	920	---	---	560	---	---	---
9	---	---	---	---	---	890	---	---	240	---	31	---
10	---	---	---	---	---	640	---	---	340	---	36	---
11	---	---	---	---	---	530	---	---	200	---	65	---
12	---	---	---	---	---	620	---	---	170	---	---	---
13	---	---	---	---	---	630	---	---	410	---	---	---
14	---	---	---	---	---	640	---	---	430	---	---	---
15	---	---	---	---	---	900	---	---	540	---	---	---
16	---	---	---	---	---	930	---	---	540	---	---	---
17	---	---	---	---	---	920	---	---	620	---	---	---
18	---	---	---	---	---	1000	---	---	890	---	---	---
19	---	---	---	---	---	1000	---	---	950	---	---	---
20	---	---	---	---	---	1000	---	---	1200	---	---	---
21	---	---	---	---	---	1000	---	---	1100	---	---	---
22	---	---	---	---	---	1000	1100	---	---	---	---	---
23	---	---	---	---	---	1000	1100	---	---	---	---	---
24	---	---	---	---	---	1000	1100	---	---	---	---	---
25	---	---	---	---	---	990	1000	---	---	---	---	---
26	---	---	---	---	---	980	1000	---	---	---	---	400
27	---	---	---	---	1000	960	---	---	---	---	---	490
28	---	---	---	---	900	1100	---	---	---	---	---	520
29	---	---	---	---	---	970	---	---	---	---	---	530
30	---	---	---	---	---	980	---	---	---	---	---	540
31	---	---	---	---	---	1000	---	---	---	---	---	---
MONTH	---	---	---	---	---	830	---	---	---	---	---	---

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	82	---	---	---	---	---	---
2	---	---	---	---	---	32	---	---	71	---	---	---
3	---	---	---	---	---	18	---	---	20	---	---	---
4	---	---	---	---	---	23	---	---	171	---	---	---
5	---	---	---	---	---	18	---	---	127	0.42	---	---
6	---	---	---	---	---	12	---	---	46	---	---	---
7	---	---	---	---	---	13	---	---	1.7	---	---	---
8	---	---	---	---	---	20	---	---	0.51	---	---	---
9	---	---	---	---	---	16	---	---	528	---	30	---
10	---	---	---	---	---	7.5	---	---	260	---	3.2	---
11	---	---	---	---	---	5.1	---	---	1100	---	0.09	---
12	---	---	---	---	---	5.5	---	---	295	---	---	---
13	---	---	---	---	---	5.1	---	---	559	---	---	---
14	---	---	---	---	---	4.3	---	---	396	---	---	---
15	---	---	---	---	---	4.6	---	---	284	---	---	---
16	---	---	---	---	---	4.3	---	---	117	---	---	---
17	---	---	---	---	---	3.7	---	---	33	---	---	---
18	---	---	---	---	---	3.2	---	---	17	---	---	---
19	---	---	---	---	---	2.3	---	---	5.1	---	---	---
20	---	---	---	---	---	1.5	---	---	1.6	---	---	---
21	---	---	---	---	---	1.5	---	---	0.28	---	---	---
22	---	---	---	---	---	1.5	1.9	---	---	---	---	---
23	---	---	---	---	---	1.5	0.97	---	---	---	---	---
24	---	---	---	---	---	1.5	0.96	---	---	---	---	---
25	---	---	---	---	---	1.7	0.72	---	---	---	---	---
26	---	---	---	---	---	1.4	0.11	---	---	---	---	174
27	---	---	---	---	188	1.7	---	---	---	---	---	92
28	---	---	---	---	233	1.9	---	---	---	---	---	36
29	---	---	---	---	---	1.4	---	---	---	---	---	7.8
30	---	---	---	---	---	0.68	---	---	---	---	---	2.5
31	---	---	---	---	---	0.27	---	---	---	---	---	---
MONTH	---	---	---	---	---	9.6	---	---	---	---	---	---

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	310	---	---	---	---	---	---
2	---	---	---	---	---	320	---	---	73	---	---	---
3	---	---	---	---	---	310	---	---	200	---	---	---
4	---	---	---	---	---	350	---	---	160	---	---	---
5	---	---	---	---	---	340	---	---	110	64	---	---
6	---	---	---	---	---	340	---	---	300	---	---	---
7	---	---	---	---	---	360	---	---	300	---	---	---
8	---	---	---	---	---	390	---	---	320	---	---	---
9	---	---	---	---	---	370	---	---	110	---	12	---
10	---	---	---	---	---	370	---	---	170	---	13	---
11	---	---	---	---	---	290	---	---	86	---	20	---
12	---	---	---	---	---	350	---	---	70	---	---	---
13	---	---	---	---	---	360	---	---	220	---	---	---
14	---	---	---	---	---	370	---	---	230	---	---	---
15	---	---	---	---	---	380	---	---	300	---	---	---
16	---	---	---	---	---	390	---	---	300	---	---	---
17	---	---	---	---	---	390	---	---	350	---	---	---
18	---	---	---	---	---	430	---	---	370	---	---	---
19	---	---	---	---	---	430	---	---	410	---	---	---
20	---	---	---	---	---	450	---	---	520	---	---	---
21	---	---	---	---	---	430	---	---	460	---	---	---
22	---	---	---	---	---	440	470	---	---	---	---	---
23	---	---	---	---	---	430	460	---	---	---	---	---
24	---	---	---	---	---	430	460	---	---	---	---	---
25	---	---	---	---	---	430	450	---	---	---	---	---
26	---	---	---	---	---	420	450	---	---	---	---	210
27	---	---	---	---	440	410	---	---	---	---	---	270
28	---	---	---	---	380	480	---	---	---	---	---	290
29	---	---	---	---	---	420	---	---	---	---	---	290
30	---	---	---	---	---	420	---	---	---	---	---	300
31	---	---	---	---	---	440	---	---	---	---	---	---
MONTH	---	---	---	---	---	390	---	---	---	---	---	---

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	46	---	---	---	---	---	---
2	---	---	---	---	---	18	---	---	30	---	---	---
3	---	---	---	---	---	10	---	---	10	---	---	---
4	---	---	---	---	---	13	---	---	83	---	---	---
5	---	---	---	---	---	10	---	---	57	0.17	---	---
6	---	---	---	---	---	7.0	---	---	25	---	---	---
7	---	---	---	---	---	7.4	---	---	0.95	---	---	---
8	---	---	---	---	---	8.6	---	---	0.29	---	---	---
9	---	---	---	---	---	6.5	---	---	235	---	11	---
10	---	---	---	---	---	4.3	---	---	128	---	1.2	---
11	---	---	---	---	---	2.8	---	---	476	---	0.03	---
12	---	---	---	---	---	3.2	---	---	123	---	---	---
13	---	---	---	---	---	2.9	---	---	293	---	---	---
14	---	---	---	---	---	2.5	---	---	210	---	---	---
15	---	---	---	---	---	1.9	---	---	158	---	---	---
16	---	---	---	---	---	1.8	---	---	65	---	---	---
17	---	---	---	---	---	1.6	---	---	19	---	---	---
18	---	---	---	---	---	1.4	---	---	7.0	---	---	---
19	---	---	---	---	---	1.0	---	---	2.2	---	---	---
20	---	---	---	---	---	0.65	---	---	0.70	---	---	---
21	---	---	---	---	---	0.63	---	---	0.12	---	---	---
22	---	---	---	---	---	0.64	0.81	---	---	---	---	---
23	---	---	---	---	---	0.62	0.42	---	---	---	---	---
24	---	---	---	---	---	0.63	0.42	---	---	---	---	---
25	---	---	---	---	---	0.74	0.31	---	---	---	---	---
26	---	---	---	---	---	0.61	0.04	---	---	---	---	90
27	---	---	---	---	81	0.71	---	---	---	---	---	50
28	---	---	---	---	98	0.82	---	---	---	---	---	20
29	---	---	---	---	---	0.60	---	---	---	---	---	4.3
30	---	---	---	---	---	0.29	---	---	---	---	---	1.4
31	---	---	---	---	---	0.11	---	---	---	---	---	---
MONTH	---	---	---	---	---	5.1	---	---	---	---	---	---

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	1650	---	---	---	---	---	---
2	---	---	---	---	---	1710	---	---	501	---	---	---
3	---	---	---	---	---	1650	---	---	1080	---	---	---
4	---	---	---	---	---	1870	---	---	870	---	---	---
5	---	---	---	---	---	1790	---	---	657	462	---	---
6	---	---	---	---	---	1820	---	---	1620	---	---	---
7	---	---	---	---	---	1900	---	---	1580	---	---	---
8	---	---	---	---	---	2050	---	---	1680	---	---	---
9	---	---	---	---	---	1970	---	---	635	---	191	---
10	---	---	---	---	---	1960	---	---	912	---	202	---
11	---	---	---	---	---	1550	---	---	558	---	264	---
12	---	---	---	---	---	1880	---	---	489	---	---	---
13	---	---	---	---	---	1900	---	---	1160	---	---	---
14	---	---	---	---	---	1960	---	---	1230	---	---	---
15	---	---	---	---	---	2010	---	---	1600	---	---	---
16	---	---	---	---	---	2090	---	---	1600	---	---	---
17	---	---	---	---	---	2070	---	---	1870	---	---	---
18	---	---	---	---	---	2270	---	---	1970	---	---	---
19	---	---	---	---	---	2300	---	---	2150	---	---	---
20	---	---	---	---	---	2390	---	---	2740	---	---	---
21	---	---	---	---	---	2300	---	---	2440	---	---	---
22	---	---	---	---	---	2330	2490	---	---	---	---	---
23	---	---	---	---	---	2280	2450	---	---	---	---	---
24	---	---	---	---	---	2290	2410	---	---	---	---	---
25	---	---	---	---	---	2260	2380	---	---	---	---	---
26	---	---	---	---	---	2220	2380	---	---	---	---	1110
27	---	---	---	---	2310	2180	---	---	---	---	---	1440
28	---	---	---	---	2000	2530	---	---	---	---	---	1520
29	---	---	---	---	---	2200	---	---	---	---	---	1560
30	---	---	---	---	---	2210	---	---	---	---	---	1600
31	---	---	---	---	---	2310	---	---	---	---	---	---
MONTH	---	---	---	---	---	2060	---	---	---	---	---	---

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	245	---	---	---	---	---	---
2	---	---	---	---	---	97	---	---	204	---	---	---
3	---	---	---	---	---	53	---	---	55	---	---	---
4	---	---	---	---	---	71	---	---	451	---	---	---
5	---	---	---	---	---	53	---	---	341	1.2	---	---
6	---	---	---	---	---	37	---	---	135	---	---	---
7	---	---	---	---	---	39	---	---	5.1	---	---	---
8	---	---	---	---	---	45	---	---	1.5	---	---	---
9	---	---	---	---	---	35	---	---	1420	---	183	---
10	---	---	---	---	---	23	---	---	694	---	18	---
11	---	---	---	---	---	15	---	---	3070	---	0.38	---
12	---	---	---	---	---	17	---	---	858	---	---	---
13	---	---	---	---	---	15	---	---	1570	---	---	---
14	---	---	---	---	---	13	---	---	1120	---	---	---
15	---	---	---	---	---	10	---	---	843	---	---	---
16	---	---	---	---	---	9.6	---	---	346	---	---	---
17	---	---	---	---	---	8.4	---	---	101	---	---	---
18	---	---	---	---	---	7.4	---	---	37	---	---	---
19	---	---	---	---	---	5.3	---	---	12	---	---	---
20	---	---	---	---	---	3.5	---	---	3.7	---	---	---
21	---	---	---	---	---	3.3	---	---	0.65	---	---	---
22	---	---	---	---	---	3.4	4.3	---	---	---	---	---
23	---	---	---	---	---	3.3	2.2	---	---	---	---	---
24	---	---	---	---	---	3.3	2.2	---	---	---	---	---
25	---	---	---	---	---	3.9	1.7	---	---	---	---	---
26	---	---	---	---	---	3.2	0.25	---	---	---	---	483
27	---	---	---	---	429	3.8	---	---	---	---	---	268
28	---	---	---	---	519	4.4	---	---	---	---	---	107
29	---	---	---	---	---	3.2	---	---	---	---	---	23
30	---	---	---	---	---	1.6	---	---	---	---	---	7.3
31	---	---	---	---	---	0.62	---	---	---	---	---	---
MONTH	---	---	---	---	---	27	---	---	---	---	---	---

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OKLA.

LOCATION.--Lat 35°00'42", long 99°54'12", in SW1/4NW1/4 sec.12, T.6 N., R.26 W., Harmon County, at gaging station at bridge on State Highway 30, 4.0 mi (6.4 km) northeast of Carl, and at mile 54.0 (86.9 km).

DRAINAGE AREA.--416 sq mi (1,077.4 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.							
05...	1.3	75000	80	0	5800	120000	201000
12...	2.7	31000	118	0	3000	50000	86600
19...	4.1	22000	68	0	2600	34000	62400
26...	3.1	24000	106	0	2600	39000	66000
NOV.							
02...	3.6	19000	76	0	2200	30000	52900
09...	3.6	18000	80	0	2400	29000	51400
16...	7.8	13000	108	0	2000	21000	38300
23...	6.7	11000	98	0	1900	17000	31800
30...	7.2	13000	98	0	1900	20000	37500
DEC.							
07...	6.7	11000	112	0	2000	17000	32800
14...	7.3	12000	116	0	2000	19000	33800
21...	9.0	9400	80	0	1900	15000	28400
28...	9.3	9300	118	0	2000	15000	27600
JAN.							
04...	3.6	14000	82	0	2100	22000	41100
11...	19	5800	70	0	1700	9000	17900
18...	9.8	10000	70	0	1800	16000	30400
24...	9.0	9100	70	0	1800	14000	26200
FEB.							
01...	8.2	9000	76	0	1900	14000	26500
08...	15	10000	64	0	2000	16000	29100
15...	12	9500	74	0	2000	15000	27800
25...	21	2800	58	0	1600	4600	10300
MAR.							
01...	2.0	5000	68	0	1500	8200	16000
08...	11	7200	66	0	1700	12000	23900
15...	9.0	11000	72	0	2000	18000	34200
22...	7.4	9600	88	0	2100	15000	29600
29...	7.4	8400	76	0	1800	14000	27500
APR.							
05...	5.3	12000	96	0	2100	20000	37100
12...	4.7	17000	128	0	2400	27000	50600
19...	11	8700	96	0	2000	14000	25900
26...	4.1	13000	76	0	2200	21000	38300
MAY							
03...	2.7	23000	84	0	2600	37000	61800
09...	4.7	21000	78	0	2300	33000	59800
17...	1.4	48000	98	0	3800	77000	140000
24...	.89	74000	62	0	3000	120000	204000
31...	26	7500	140	0	1800	12000	23400
JUNE							
07...	9.0	13000	122	0	2200	21000	39900
13...	196	500	118	0	680	750	2480
21...	4.1	12000	72	0	2100	19000	37000
28...	.69	43000	70	0	3200	68000	116000
JULY							
08...	.89	57000	78	0	3200	93000	165000
11...	.11	92000	56	0	4000	150000	267000
19...	.11	100000	60	0	3800	160000	287000
26...	5.3	17000	132	0	2100	28000	53200
AUG.							
02...	4.7	23000	78	0	2200	37000	65800
09...	1.2	12000	116	0	1400	19000	34800
15...	80	6400	146	0	1300	6900	14500
23...	46	1700	144	0	660	2800	6020
30...	1.4	44000	64	0	2600	71000	123000
SEP.							
06...	.27	93000	68	0	4000	150000	249000
13...	.38	110000	60	0	4200	170000	290000
19...	17	8700	98	0	1600	14000	26100
27...	41	9400	106	0	1600	15000	28200

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water years 1960-61 (partial-record station), November 1961 to September 1962, July 1968 to current year.
Water temperatures: July 1968 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
05...	273	706	10000	9930	326	174000	7.9
12...	118	631	6600	6500	166	97600	7.9
19...	84.9	691	4600	4540	141	76700	7.8
26...	89.8	552	5000	4910	148	80100	7.9
NOV.							
02...	71.9	514	3900	3840	132	69300	7.8
09...	69.9	500	4000	3930	128	66900	7.8
16...	52.1	806	3300	3210	99	51800	8.0
23...	43.2	575	3100	3020	86	45400	7.9
30...	51.0	729	3200	3120	100	51400	7.9
DEC.							
07...	44.6	593	2200	2110	102	45400	8.0
14...	46.0	666	3200	3110	92	46700	8.0
21...	38.6	690	2800	2730	77	39900	7.9
28...	37.5	693	3000	2900	74	38100	7.9
JAN.							
04...	55.9	399	3400	3300	104	55600	8.0
11...	24.3	918	2300	2200	53	26600	8.0
18...	41.3	804	2800	2700	82	42900	7.9
24...	35.6	637	2600	2500	78	38000	7.9
FEB.							
01...	36.0	587	2700	2600	75	38100	7.9
08...	39.6	1100	3000	2900	79	42700	7.8
15...	37.8	901	2800	2700	78	39900	7.9
25...	14.0	584	2200	2200	26	14800	8.1
MAR.							
01...	21.8	864	2200	2100	46	23200	7.9
08...	32.5	710	2800	2700	59	33400	7.8
15...	46.5	831	3200	3100	85	46500	7.8
22...	40.3	591	3000	2900	76	40500	7.9
29...	37.4	549	3000	2900	67	36900	7.9
APR.							
05...	50.5	531	3400	--	--	50400	8.1
12...	68.8	682	4200	4100	--	65200	8.1
19...	35.2	769	3000	2900	--	36600	8.1
26...	52.1	424	3600	3500	--	52200	7.9
MAY							
03...	84.0	450	4600	4500	148	77400	7.9
09...	81.3	759	3500	3400	154	74400	8.0
17...	190	52.9	7400	7300	243	130000	8.0
24...	277	89.0	9900	9800	324	170000	7.5
31...	31.8	.16	2700	2600	63	32600	8.3
JUNE							
07...	54.3	970	3700	3600	93	52200	8.0
13...	3.37	1310	820	720	7.6	3540	8.3
21...	50.3	410	3400	3300	90	48000	7.9
28...	158	216	7400	7300	218	120000	7.7
JULY							
04...	224	396	8800	8700	264	147000	7.8
11...	363	79.3	13000	13000	351	192000	6.7
19...	390	85.2	13000	13000	382	196000	7.1
26...	72.4	761	4100	4000	116	65400	8.1
AUG.							
02...	89.5	335	4700	4600	146	78500	7.9
09...	47.3	113	2800	2700	99	47300	8.3
15...	19.7	3130	1900	1800	44	20700	8.3
23...	8.19	748	980	860	24	9140	8.3
30...	167	465	7100	7000	227	124000	7.8
SEP.							
06...	339	182	13000	13000	355	185000	7.5
13...	394	298	14000	14000	405	193000	7.4
19...	35.5	1200	2400	2300	77	36700	8.2
27...	38.4	3120	2200	2100	87	38500	8.0

07303400 ELM FORK OF NORTH FORK OF RED RIVER NEAR CARL, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151000	68100	58300	34800	41800	20360	53000	63000	41300	115000	71400	152000
2	155000	69800	45300	36800	37800	23390	54200	71600	51000	123000	78600	161000
3	152000	69900	50200	37800	37400	35920	59300	80800	18300	128000	93000	169000
4	152000	69400	43400	54700	36900	27800	50800	70900	6060	150000	108000	174000
5	174000	66800	53100	64400	48800	29830	51300	88400	---	159000	116000	178000
6	174000	68000	47000	62700	41500	29320	52200	91000	34000	171000	87400	186000
7	186000	66500	44200	47400	42500	31520	53700	101000	46800	177000	59100	175000
8	174000	66700	52000	45800	42900	30630	49900	102000	72600	177000	109000	186000
9	77400	66900	49000	45000	35000	33200	44400	80800	5150	184000	48700	165000
10	84000	61600	47900	26600	34700	32600	53100	65000	9210	190000	51800	183000
11	103000	61900	52000	23300	31300	32900	64800	80200	8460	192000	96600	190000
12	103000	61500	45300	24400	31300	34500	66300	111000	10000	191000	112000	187000
13	104000	44200	42600	35500	38700	39000	64700	116000	6480	191000	120000	190000
14	103000	44000	47300	40900	39000	32000	56700	102000	15000	195000	120000	190000
15	101000	52400	40600	36200	39900	46400	60400	118000	25100	197000	54200	224000
16	82800	51800	37300	34000	45000	43900	40500	127000	25900	195000	40000	172000
17	86300	52500	40900	33800	45100	37300	39500	139000	29700	194000	63200	40400
18	78200	51200	40600	34600	45000	42900	36500	136000	34500	194000	88400	11500
19	77400	50400	37100	38100	34800	31500	39500	150000	38800	196000	91400	35200
20	76200	47100	39100	34600	19900	34500	38400	153000	47400	197000	121000	52100
21	73800	44500	40200	53000	---	35300	39300	158000	49500	189000	115000	78400
22	85800	46600	32700	41600	26400	39400	35300	163000	54800	197000	111000	40200
23	87300	45700	34200	36200	19900	36600	38100	155000	61600	208000	11900	27500
24	86500	38600	32200	35500	---	32800	46900	175000	73500	6000	45200	30300
25	86800	39200	36500	33200	14900	42600	51600	185000	82800	21000	82300	7680
26	81400	42800	35800	32000	19200	38700	55800	190000	88500	65000	91400	27400
27	80700	43400	35900	34000	17800	44100	56300	155000	108000	79500	84200	38500
28	73900	41300	38100	34700	26400	39900	59500	181000	122000	132000	96500	45400
29	77400	40600	35400	36600	---	39700	59400	93100	118000	6040	114000	57300
30	78000	46200	38200	36400	---	49300	58600	20700	118000	40200	132000	62700
31	78100	---	36000	37100	---	52500	---	36200	---	49500	14100	---
MONTH	105940	54250	42210	38760	34380	36140	51000	114800	48220	145460	84750	114550

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	10.0	6.5	3.0	8.5	13.0	21.5	26.0	29.5	26.0	28.0
2	---	---	9.0	4.0	---	2.5	12.5	21.0	27.5	29.5	25.5	28.0
3	20.5	---	10.0	---	---	4.5	13.0	19.0	26.5	28.5	26.5	30.0
4	21.5	---	7.0	---	---	7.0	11.0	24.0	25.0	31.0	---	29.0
5	34.0	---	7.5	---	---	9.0	9.5	20.0	26.5	31.0	---	29.5
6	---	---	5.0	---	---	7.5	11.5	21.0	25.5	30.5	---	31.5
7	20.0	---	7.0	---	---	7.5	12.0	22.5	27.0	31.5	---	30.5
8	10.0	---	9.5	---	---	9.0	15.5	18.5	26.0	31.5	---	31.0
9	12.5	---	9.5	---	---	10.5	15.0	21.0	23.0	31.5	---	29.5
10	13.5	---	9.0	---	---	11.0	17.0	23.5	23.5	32.0	---	29.5
11	16.0	---	4.0	---	---	16.5	19.5	18.5	24.0	30.5	---	29.0
12	17.0	---	4.0	2.0	---	15.0	19.5	18.0	26.5	30.5	---	28.5
13	18.0	---	4.5	5.5	---	15.5	16.0	20.0	24.5	31.0	---	28.5
14	20.0	---	5.5	4.5	---	12.5	16.0	20.5	27.5	30.0	26.5	27.0
15	15.0	---	7.0	3.0	---	12.5	17.0	20.5	27.0	30.0	25.5	24.5
16	12.5	---	4.5	4.5	---	14.0	16.5	23.5	---	31.5	26.5	23.5
17	13.0	---	---	5.5	---	12.5	18.5	24.5	---	31.0	27.5	16.0
18	13.5	---	---	5.0	---	9.5	17.5	22.5	---	30.0	28.5	13.0
19	15.0	---	---	4.0	---	8.5	16.5	18.0	---	26.0	28.0	14.5
20	16.5	10.0	---	5.0	---	8.0	16.0	22.0	---	26.0	28.0	15.5
21	10.0	9.0	6.0	8.0	---	12.0	18.5	22.5	---	28.0	29.0	18.0
22	---	5.5	---	7.0	---	10.5	14.0	26.5	---	29.5	28.0	16.0
23	---	2.5	---	4.5	---	10.0	15.0	24.0	---	26.5	24.5	14.0
24	---	2.5	---	5.5	---	6.0	19.5	21.5	---	29.0	26.5	15.5
25	---	---	---	6.5	9.5	11.0	21.5	22.5	---	29.5	27.0	20.0
26	---	---	---	6.5	9.0	13.0	22.5	24.5	---	26.5	31.0	23.5
27	---	7.5	---	5.0	7.0	17.0	21.0	25.5	---	27.0	28.5	25.0
28	---	8.0	---	6.5	7.5	14.5	15.5	25.5	29.5	26.0	28.5	23.5
29	---	11.5	---	9.0	---	15.5	18.0	21.5	28.0	25.0	27.5	21.0
30	---	14.0	---	8.5	---	15.0	21.0	22.5	28.5	24.5	27.5	---
31	---	---	---	4.0	---	16.0	---	25.0	---	26.0	28.0	---
MONTH	---	---	---	---	---	11.0	16.5	22.0	---	29.0	---	24.0

07303400 ELM FORK OF NORTH FORK OF RED RIVER NEAR CARL, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3500	2400	2200	1900	2000	1700	2200	2300	2000	3000	2400	3500
2	3500	2400	2100	2000	2000	1800	2200	2400	2100	3100	2500	3600
3	3500	2400	2100	2000	2000	1900	2200	2500	1700	3100	2700	3700
4	3500	2400	2000	2200	2000	1800	2100	2400	1000	3400	2900	3800
5	3800	2300	2200	2300	2100	1900	2100	2600	---	3600	3000	3800
6	3800	2400	2100	2300	2000	1900	2200	2700	1900	3700	2600	3900
7	3900	2300	2100	2100	2000	1900	2200	2800	2100	3800	2200	3800
8	3800	2300	2200	2100	2000	1900	2100	2800	2400	3800	2900	3900
9	2500	2300	2100	2100	1900	1900	2100	2500	970	3900	2100	3600
10	2600	2300	2100	1800	1900	1900	2200	2300	1200	4000	2200	3900
11	2800	2300	2200	1800	1900	1900	2300	2500	930	4000	2700	4000
12	2800	2300	2100	1800	1900	1900	2300	2900	1300	4000	2900	3900
13	2800	2100	2000	1900	2000	2000	2300	3000	1000	4000	3000	4000
14	2800	2000	2100	2000	2000	1900	2200	2800	1600	4000	3000	4000
15	2800	2200	2000	1900	2000	2100	2300	3000	1800	4100	2200	---
16	2600	2200	2000	1900	2100	2000	2000	3100	1800	4000	2000	3700
17	2600	2200	2000	1900	2100	2000	2000	3300	1900	4000	2300	2000
18	2500	2100	2000	1900	2100	2000	1900	3300	1900	4000	2600	1300
19	2500	2100	2000	2000	1900	1900	2000	3400	2000	4000	2700	1900
20	2500	2100	2000	1900	1700	1900	2000	3500	2100	4100	3100	2200
21	2400	2100	2000	2200	---	1900	2000	3500	2100	4000	3000	2500
22	2600	2100	1900	2000	1800	2000	1900	3600	2200	4100	2900	2000
23	2600	2100	1900	1900	1700	2000	2000	3500	2300	4200	1400	1800
24	2600	2000	1900	1900	---	1900	2100	3800	2400	1000	2100	1900
25	2600	2000	1900	1900	1500	2000	2100	3900	2600	1700	2600	1100
26	2500	2000	1900	1900	1700	2000	2200	4000	2600	2300	2700	1800
27	2500	2000	1900	1900	1700	2000	2200	3500	2900	2500	2600	2000
28	2400	2000	2000	1900	1800	2000	2300	3800	3100	3200	2700	2100
29	2500	2100	1900	2000	---	2000	2300	2700	3000	1000	3000	2200
30	2500	2100	2000	1900	---	2100	2200	1700	3000	2000	3200	2300
31	2500	---	1900	2000	---	2200	---	1900	---	2100	1500	---
MONTH	2900	2200	2000	2000	1900	1900	2100	3000	2000	3300	2600	2900

DISSOLVED SULFATE (TONS/DAY), MEAN V/ALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	22	41	45	45	94	25	24	81	14	45	9.0
2	19	26	38	51	53	77	24	23	57	15	30	6.8
3	15	26	37	64	64	58	21	19	24	12	23	4.7
4	12	27	35	28	58	79	21	19	805	9.2	20	3.6
5	13	29	37	28	51	75	30	21	---	5.2	14	4.3
6	11	32	34	31	50	60	33	18	78	3.2	148	3.8
7	7.0	30	37	34	33	61	30	17	56	1.5	164	3.5
8	5.9	29	41	42	44	56	33	18	53	1.0	63	3.9
9	4.4	27	41	56	68	51	27	33	3170	0.73	228	12
10	6.9	28	46	64	83	49	32	26	621	0.53	209	4.7
11	11	28	41	72	86	51	33	18	1280	0.43	59	4.4
12	16	30	38	77	66	51	28	17	478	0.43	33	3.8
13	18	45	41	94	64	49	22	15	836	0.32	25	4.0
14	22	43	41	81	64	39	30	13	365	0.32	22	4.3
15	26	48	59	48	59	48	34	12	146	0.32	188	---
16	23	45	50	62	61	48	53	13	98	0.32	129	4.4
17	41	41	47	52	61	43	53	12	70	0.21	68	275
18	33	40	44	50	67	43	58	9.7	48	0.21	38	214
19	31	39	40	49	57	40	59	8.3	35	0.21	24	177
20	26	37	47	45	51	39	51	8.5	26	0.21	19	57
21	22	37	49	58	---	41	43	8.5	25	0.21	14	34
22	22	35	48	53	64	41	38	11	24	0.21	1220	81
23	22	34	41	48	112	42	28	11	22	2090	750	124
24	21	31	35	50	---	40	34	9.4	20	143	84	787
25	22	40	46	50	104	49	26	8.7	17	39	39	1000
26	21	37	46	46	149	45	24	25	12	36	24	282
27	18	36	52	50	147	45	23	20	8.6	33	19	181
28	21	37	49	52	123	34	22	11	6.8	2780	17	138
29	21	41	49	58	---	34	27	930	4.5	210	15	96
30	20	40	50	53	---	31	27	301	4.2	135	12	62
31	21	---	42	48	---	30	---	137	---	63	4.9	---
MONTH	19	35	43	53	73	50	33	59	292	180	121	124

07303400 ELM FORK OF NORTH FORK OF RED RIVER NEAR CARL, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95800	30200	25600	14600	17800	7800	23100	27800	17600	64800	31700	96700
2	99300	31000	19500	15500	16000	9200	23700	31800	22200	71700	36900	104500
3	96700	31000	21800	16000	15800	15100	26000	38500	6800	76000	47400	111400
4	96700	30800	18600	23900	15500	11300	22100	31500	1500	95000	58700	115700
5	115700	29600	23100	28400	21100	12200	22300	44100	---	102700	65600	119100
6	115700	30100	20300	27600	17700	12000	22700	46000	14200	113100	43300	101300
7	101300	29400	19000	20500	18200	13000	23400	53300	20200	118300	26000	116600
8	115700	29500	22600	19700	18400	12600	21600	54100	32400	118300	59600	101300
9	36000	29600	21200	19300	14700	13800	19100	38500	1300	112000	21100	107900
10	40800	27100	20700	10700	14500	13500	23100	28700	2600	80000	22500	117300
11	54800	27300	22600	9200	12900	13700	28600	38000	1100	69400	50100	80000
12	54800	27100	19500	9700	12900	14400	29300	61300	2900	74700	62200	96000
13	55500	19000	18200	14900	16400	16500	28600	65600	1600	74700	69100	80000
14	54800	18900	20400	17400	16500	13300	24800	54100	5300	53400	69100	80000
15	53300	22000	17300	15200	17000	20000	26600	67400	10000	42800	23700	---
16	39900	22500	15700	14200	19300	18800	17200	75100	10400	53400	17000	114000
17	42500	22900	17400	14100	19400	15700	16800	85500	12200	58700	27900	17200
18	36600	22300	17300	14500	19300	18400	15400	82900	14400	58700	44100	3600
19	36000	21900	15600	16100	14600	13000	16800	95000	16400	48100	46300	14800
20	35100	20300	16600	14500	7600	14400	16300	97600	20500	42800	69900	22700
21	33300	19100	17100	23100	---	14800	16700	101900	21500	85300	64800	36700
22	42100	20100	13600	17800	10600	16700	14800	106200	23900	42800	61300	17100
23	43300	19700	14300	15200	7600	15400	16100	99300	27100	---	3800	11100
24	42700	16300	13300	14900	---	13600	20200	116600	33100	1500	19400	12500
25	42900	16600	15400	13800	5200	18200	22400	106600	39900	8100	39600	1900
26	38900	18300	15000	13300	7300	16400	24400	80000	44100	28700	46300	11100
27	38400	18600	15100	14200	6600	18900	24600	99300	58700	37500	41000	16300
28	33400	17600	16100	14500	10600	17000	26100	121700	70800	79400	50000	19500
29	36000	21000	14800	15400	---	16900	26100	47500	67400	1500	63900	25100
30	36400	19900	16200	15300	---	21400	25700	8800	67400	17100	79400	27600
31	36500	---	15100	15600	---	22900	---	15200	---	21500	4900	---
MONTH	58100	23700	18000	16400	14400	15200	22200	65100	23000	61700	44100	61300

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	492	285	470	342	490	421	262	293	713	315	599	251
2	536	334	363	402	431	398	262	309	586	348	448	186
3	418	335	376	517	511	448	239	291	96	287	397	141
4	339	349	321	303	462	487	214	255	1190	254	412	112
5	406	367	390	346	508	495	307	345	---	150	301	135
6	388	407	334	373	440	389	344	310	575	98	2460	98
7	181	373	343	332	294	422	323	317	545	48	1090	107
8	181	367	428	399	397	374	333	350	709	32	1290	101
9	63	336	407	522	514	373	247	499	4210	21	2280	350
10	110	337	453	376	627	351	344	318	1320	11	2190	142
11	207	339	434	371	593	365	402	267	1530	7.5	1080	89
12	311	358	363	419	454	385	356	364	1120	8.1	705	93
13	360	420	364	724	531	406	270	319	1290	6.1	560	80
14	429	398	403	706	536	275	335	248	1240	4.3	504	86
15	490	511	513	378	504	459	394	273	811	3.5	2040	---
16	356	475	404	460	575	437	456	304	561	4.3	1100	135
17	666	438	409	381	576	344	444	323	460	3.2	828	2370
18	484	421	383	379	627	387	456	246	362	3.2	642	580
19	447	396	317	405	433	274	498	228	293	2.6	412	1350
20	369	357	389	336	225	296	417	240	254	2.3	434	600
21	306	346	415	624	---	316	360	245	255	4.6	297	505
22	364	336	341	470	373	348	292	315	265	2.3	25660	692
23	362	324	305	378	491	329	231	322	264	---	2100	752
24	346	260	245	382	---	283	328	290	277	211	787	5250
25	359	332	361	362	353	443	273	239	270	181	689	1720
26	326	331	357	322	626	372	264	497	203	442	412	1710
27	280	331	403	368	570	414	253	563	174	486	299	1500
28	289	328	405	392	717	288	254	362	157	69070	311	1270
29	311	409	373	458	---	287	310	16420	100	310	328	1080
30	295	387	406	413	---	311	306	1370	93	1150	300	746
31	305	---	331	380	---	315	---	1070	---	637	16	---
MONTH	346	366	381	420	491	371	326	897	687	2470	1670	766

07303400 ELM FORK OF NORTH FORK OF RED RIVER NEAR CARL, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171230	54400	45100	24600	29640	14210	40050	49590	29280	111300	57610	172890
2	177880	56080	32700	26040	26760	16390	41190	57800	38140	124620	64480	187870
3	172890	56180	37370	26760	26470	25410	46060	66580	12730	132940	78230	201190
4	172890	55700	30080	41670	26110	19560	37950	57130	3920	169560	99650	209510
5	209510	53220	40140	50930	36040	21020	38420	73840	---	184540	112960	216170
6	209510	54360	34320	49300	29420	20660	39280	76320	24020	204520	72480	250890
7	250890	52930	31650	34700	30140	22240	40710	87990	34130	214510	45670	211180
8	209510	53120	39090	33170	30430	21600	37090	89660	58750	214510	101310	250890
9	63340	53310	36230	32410	24740	23450	31840	66580	3270	240430	35940	194530
10	69640	48250	35180	18700	24530	23020	40140	51500	6190	271820	38900	235200
11	91320	48540	34090	16330	22080	23230	51310	66010	2770	282290	81660	271820
12	91320	48160	32700	17120	22080	24380	52740	104640	6760	277050	106300	256130
13	92990	31650	30210	25100	27410	27620	51210	112960	4230	277050	119620	271820
14	91320	31450	34600	28990	27620	22590	43580	89660	10350	297960	119620	271820
15	87990	39470	28770	25610	28270	35750	47110	116290	17620	308450	41190	---
16	68490	36900	26400	24020	32410	31360	28700	131270	18200	297980	28340	206180
17	71830	39570	28990	23880	32500	26400	27980	151250	20930	292750	49760	28630
18	64100	38330	28770	24460	32410	30430	25820	146260	24380	292750	73040	7840
19	63340	37560	26250	26970	24600	22230	27980	169560	27480	303210	76700	24890
20	62190	34410	27690	24460	13880	24380	27190	174550	34700	308450	121290	39190
21	59900	31930	26490	40050	---	24960	27840	182880	36700	266590	111300	64290
22	71350	33940	23090	29490	18560	27910	24960	191200	41760	308450	104640	28490
23	72790	33080	24170	25610	13880	25900	26970	177880	48250	366000	8120	19350
24	72020	27330	22730	25100	---	23160	34220	211180	59610	3880	32600	21360
25	72310	27770	25620	23450	10280	30210	38710	245660	68490	14670	68010	5090
26	67150	30360	25320	22590	13380	27410	42720	271820	73930	51500	76700	19280
27	66490	30880	25390	24020	12370	31550	43200	177880	99650	65340	69830	27260
28	60000	24280	26970	24530	18560	28270	46250	224730	122950	139600	81570	32790
29	63340	35850	25030	25900	---	28130	46150	78320	116290	3910	109630	44150
30	63910	33550	27050	25750	---	36510	45390	14450	116290	28490	139600	49300
31	64000	---	25460	26250	---	39570	---	25610	---	36700	9710	---
MONTH	104050	41320	30510	28000	24410	25730	38430	120680	48060	196510	75420	131720

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	878	515	828	578	664	767	454	522	1190	541	1090	448
2	961	606	609	675	722	708	456	562	1010	606	783	335
3	747	607	646	867	858	755	423	503	179	503	655	255
4	607	632	534	529	775	845	369	463	3080	453	700	204
5	735	661	683	619	866	851	529	578	---	269	519	245
6	622	734	565	666	731	669	594	515	973	177	4130	244
7	447	672	572	562	488	721	561	523	921	87	3340	194
8	328	660	739	672	657	642	571	581	1280	58	2190	251
9	111	605	694	875	869	633	413	863	10670	45	3880	630
10	168	599	769	656	1060	597	596	570	3170	37	3780	286
11	345	603	749	661	1010	621	720	463	3800	30	1760	301
12	518	637	609	739	775	652	641	622	2570	30	1210	249
13	603	701	604	1220	888	679	484	549	3370	22	969	272
14	715	662	682	1170	895	470	586	412	2430	24	872	294
15	808	885	855	636	840	774	700	471	1430	25	3560	---
16	610	819	677	778	963	728	759	532	983	24	1640	245
17	1120	759	681	645	965	577	740	572	791	16	1480	3940
18	848	724	637	641	1050	641	767	434	612	16	1080	1250
19	787	680	532	677	731	468	831	407	490	16	683	2280
20	655	608	651	568	412	500	697	429	431	17	753	1040
21	550	578	692	1080	---	532	601	439	436	14	511	885
22	617	568	580	780	651	580	492	568	462	17	43790	1150
23	609	545	516	636	899	552	306	576	469	181830	4450	1310
24	583	435	417	644	---	482	554	525	499	544	1320	9000
25	605	555	607	614	694	734	470	551	462	329	1050	4560
26	562	549	602	549	1160	622	461	1690	339	793	683	2970
27	485	550	679	623	1070	690	483	1010	296	847	509	2500
28	518	545	677	662	1250	481	450	667	272	121370	507	2120
29	547	697	629	769	---	478	548	27070	173	802	562	1910
30	510	652	679	695	---	532	539	2500	160	1920	528	1330
31	536	---	557	638	---	545	---	1800	---	1090	31	---
MONTH	605	635	644	714	844	630	561	1550	1480	10080	2080	1400

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.

LOCATION.--Lat 34°55'36", long 99°30'00", on east line sec.10, T.5 N., R.22 W., Greer County, at gaging station at bridge on U.S. Highway 283, 3.0 mi (4.8 km) north of Mangum, 5.0 mi (8.0 km) downstream from Haystack Creek, and at mile 17.8 (28.6 km).

DRAINAGE AREA.--838 sq mi (2,170.4 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
OCT.									
05...	.70	4000	50	0	1900	6200	13100	--	--
26...	.20	6700	98	0	2400	11000	21400	--	--
NOV.									
02...	1.0	9200	112	0	2300	15000	28100	--	--
10...	2.5	11000	96	0	2400	17000	32900	--	--
16...	5.7	11000	68	0	2400	18000	35000	--	--
23...	4.4	12000	82	0	2400	19000	34300	--	--
30...	5.7	11000	100	0	2000	18000	33000	--	--
DEC.									
07...	5.5	11000	96	0	2300	17000	32200	--	--
14...	6.4	10000	90	0	2200	16000	31300	--	--
21...	7.8	9600	112	0	2100	15000	28800	--	--
28...	8.4	9600	120	0	2100	15000	28900	--	--
JAN.									
04...	8.5	10000	142	0	2200	17000	32000	--	--
11...	10	8300	72	0	1900	14000	25700	--	--
18...	10	6900	64	0	1700	11000	21100	--	--
25...	9.0	8100	82	0	1900	13000	25200	--	--
FEB.									
01...	8.5	8800	84	0	2100	14000	25900	--	--
08...	7.8	8500	70	0	2000	14000	26100	--	--
15...	8.5	8600	74	0	2000	14000	26000	--	--
22...	6.0	6300	98	0	1600	10000	19400	--	--
MAR.									
01...	14	4100	88	0	1800	6800	14000	--	--
08...	7.4	7100	118	0	2000	11000	23100	--	--
15...	6.4	8400	92	0	2000	14000	26500	--	--
22...	4.5	9800	76	0	2300	16000	30100	--	--
29...	5.0	9100	80	0	2300	15000	30000	--	--
APR.									
05...	2.8	11000	88	0	2600	18000	34100	--	--
12...	2.4	13000	84	0	2900	20000	39500	--	--
19...	7.4	11000	58	0	2400	16000	32300	--	--
26...	3.0	11000	76	0	2600	17000	34400	--	--
MAY									
03...	1.4	13000	98	0	2800	21000	39400	--	--
10...	6.0	11000	56	0	2400	18000	34600	--	--
17...	1.5	10000	68	0	2400	16000	33000	--	--
31...	6.0	6200	104	0	1800	10000	20300	--	--
JUNE									
07...	21	4700	86	0	2000	7400	16100	--	--
14...	428	1500	134	0	1100	2500	6300	--	--
21...	6.0	5000	200	0	1700	8100	17100	--	--
28...	2.0	6100	72	0	2000	9800	20400	--	--
JULY									
05...	2.0	3700	72	0	1400	5800	13200	--	--
13...	.30	5100	130	0	2100	8300	18300	--	--
21...	.20	1800	148	0	1200	2800	7000	1.4	6.0
AUG.									
04...	4.8	5200	76	0	1600	8800	17800	--	--
14...	150	580	88	0	770	950	2910	.81	3.6
22...	7.0	5200	74	0	1600	8600	17200	--	--
29...	6.0	5200	62	0	1500	8400	17400	--	--
30...	4.0	6200	120	0	1800	10000	20500	--	--
SEP.									
06...	1.2	5200	136	0	1600	8500	17500	--	--
20...	4.0	2600	112	0	1000	4200	9400	.41	1.8
27...	10	1400	100	0	890	2200	5200	.41	1.8

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water year 1960 (partial-record station), November 1961 to August 1963, July 1968 to current year.
Water temperatures: July 1968 to current year.

REMARKS.--No flow Oct. 6-19, May 21-25,27.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
[illegible]	17.0	20.0	1960	1860	40	19200	8.2
[illegible]	29.1	9.96	3100	3020	52	30100	8.0
NOV.							
[illegible]	30.2	75.0	3700	3610	66	39200	8.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	77	[illegible]	7.9
[illegible]	[illegible]	[illegible]	[illegible]	3740	[illegible]	47000	7.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	85	47600	7.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	81	[illegible]	7.9
DEC.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JAN.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FEB.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAR.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
APR.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAY							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUNE							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JULY							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUG.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEP.							
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	30600	43700	38300	35700	20200	53100	47300	28200	28200	24900	28800
2	16900	39200	45700	38100	36900	20400	44400	51000	27700	28500	24400	28900
3	16600	39000	45700	42100	35700	20400	44300	51100	15000	28500	24600	24600
4	19200	39300	45200	43800	37000	27800	41100	44200	14900	28400	25000	25300
5	19200	39500	45300	38800	39200	30200	49500	43100	15000	18100	25100	24700
6	---	39700	---	43600	37500	33800	46900	51900	14900	18000	25300	24400
7	---	43400	44000	37800	35500	33700	43700	52000	21700	18600	25100	26700
8	---	44600	43300	39000	34700	33100	48500	51700	21900	18100	24600	27000
9	---	44000	43900	38000	34300	32500	50000	55500	21900	21300	33000	3620
10	---	45300	44000	35000	---	31000	48000	45900	21900	21200	18900	4040
11	---	44600	44600	34000	33700	35600	44000	45000	9360	21200	10500	6360
12	---	45100	44600	37300	33700	34800	53000	46000	8770	21200	17200	9900
13	---	43400	44600	35000	33700	31100	53000	43900	8750	25100	17500	12600
14	---	45600	43500	31500	33500	35300	50200	47500	8760	25100	4320	15300
15	---	45800	43500	32300	36800	36800	52300	48400	14300	25100	4270	17600
16	---	50200	39900	30900	36900	34800	40500	48400	17900	25100	4170	20100
17	---	49200	39900	31300	36800	43000	40000	43300	21100	28200	4190	10300
18	---	49600	39800	31500	37000	40500	44700	50900	19400	28300	12500	4990
19	---	48600	39900	36300	36000	42000	45700	43000	20400	28300	12900	7200
20	30700	46000	39900	34900	23300	47800	43000	32200	24200	28300	12900	14400
21	30600	45900	39900	35000	28600	39000	42000	---	23600	10200	13600	13600
22	30300	45700	40000	35200	38000	39600	42600	---	23400	10100	24700	16900
23	29300	47700	40700	36100	40500	39900	42100	---	26800	10100	24600	8970
24	30200	47100	39500	36000	41300	40900	44600	---	28600	10100	25700	4010
25	30000	47100	38000	34000	38000	35510	40500	---	27900	6900	26100	6100
26	30100	45600	38100	36600	41800	44700	47100	---	27200	10200	25300	3910
27	32700	45300	39600	36800	20100	40600	40000	---	27800	10200	24600	7040
28	29800	45200	39600	35400	22100	40200	40500	11000	20000	5960	24300	12000
29	30000	45300	38500	37900	---	40100	40600	11010	27300	25000	24900	16200
30	30000	45000	39000	37100	---	40200	47900	27000	27900	25000	28500	21000
31	30500	---	39100	42300	---	40100	---	27000	---	25000	28600	---
MONTH	---	44010	41000	36000	34900	36830	46760	---	21000	20920	20200	15020

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	---	[illegible]
2	[illegible]	---	---	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	---	[illegible]
3	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
4	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
5	[illegible]	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
6	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
7	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
8	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
9	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
10	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
11	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
12	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
13	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
14	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
15	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
16	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
17	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
18	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
19	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
20	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]
21	---	---	---	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
22	---	---	---	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
23	---	---	[illegible]	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
24	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
25	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
26	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
27	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
28	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]
29	---	---	[illegible]	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---
30	---	---	[illegible]	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---
31	---	---	[illegible]	[illegible]	---	[illegible]	---	---	---	---	[illegible]	---
MONTH	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1900	2600	2300	2200	1900	3100	2800	1800	1800	1600	1800
2	1700	2300	2700	2300	2200	1900	2600	3000	1700	1800	1600	1800
3	1700	2300	2700	2500	2200	1800	2600	3000	1500	1800	1600	1600
4	1800	2300	2600	2600	2200	1700	2400	2600	1500	1800	1600	1600
5	1800	2400	2700	2300	2300	1900	2900	2500	1500	1800	1600	1600
6	---	2400	---	2600	2200	2100	2700	3000	1500	1800	1600	1600
7	---	2600	2600	2300	2100	2100	2600	3000	1900	1800	1600	1700
8	---	2600	2600	2300	2100	2000	2800	3000	1900	1800	1600	1700
9	---	2600	2600	2300	2200	2000	2900	3200	1900	2000	2000	700
10	---	2700	2600	2200	---	1900	2800	2700	1900	2000	1800	740
11	---	2600	2600	2100	2100	2200	2600	2600	1100	2000	1800	900
12	---	2600	2600	2200	2100	2100	3100	2700	1100	2000	1700	1200
13	---	2600	2600	2100	2100	1900	3100	2600	1100	1600	1700	1400
14	---	2700	2600	1900	2000	2100	2900	2800	1100	1600	760	1600
15	---	2700	2600	2000	2200	2200	3000	2800	1500	1600	750	1700
16	---	2900	2800	1900	2200	2100	2600	2800	1700	1600	740	1900
17	---	2900	2800	1900	2200	2500	2600	2600	2000	1800	750	1200
18	---	2900	2600	1900	2200	2400	2600	2900	1900	1800	1400	800
19	---	2800	2400	2200	2200	3500	2700	2500	1800	1800	1400	970
20	1900	2700	2600	2100	1700	2800	2500	2000	1600	1800	1400	1500
21	1900	2700	2800	2100	1800	2300	2500	---	1700	1200	1600	1400
22	1900	2700	2400	2100	2300	2400	2500	---	1700	1200	1600	1700
23	1800	2800	2400	2200	2000	2400	2500	---	1700	1200	1600	1100
24	1900	2700	2400	2200	2400	2600	2700	---	1800	1200	1600	730
25	1900	2700	2300	2200	2300	2100	2700	---	1800	880	1600	690
26	1900	2700	2300	2200	2500	2400	2700	---	1700	1800	1600	730
27	2000	2700	2400	2200	1600	2400	2700	---	1700	1800	1600	950
28	1900	2600	2400	2100	1900	2400	2800	1300	1800	800	1600	1300
29	1900	2700	2300	2300	---	2000	2800	1300	1700	1600	1600	1800
30	1900	2700	2800	2200	---	2600	2800	1700	1800	1600	1800	1900
31	1900	---	2300	2500	---	2600	---	1700	---	1600	1800	---
MONTH	---	2600	2500	2200	2100	2300	2700	---	1600	1600	1500	1300

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11300	16800	14500	13400	6900	20800	18300	10300	10300	8900	10500
2	5500	14900	17600	14400	13900	7000	17100	19900	10000	10400	8600	10500
3	5300	14800	17600	16100	13400	10300	17100	19900	4700	10400	8700	8700
4	6400	14900	17400	16800	14000	10100	15700	17000	4600	10300	8900	9000
5	6400	15000	17500	14700	14900	11100	19300	16500	4700	6000	8900	8800
6	---	15100	---	16800	14200	12600	18200	20300	4600	5900	9000	8600
7	---	16700	17300	14300	13300	12600	16800	20300	7500	6200	8900	9600
8	---	17200	16600	14800	13000	12300	18800	20200	7600	6000	8700	10100
9	---	16900	16900	14400	13700	12100	19600	21800	7600	7300	12300	770
10	---	17500	16900	13500	---	11400	18600	17700	7600	7300	6300	910
11	---	17200	17200	13000	12600	13400	16900	17400	2600	7300	6200	1700
12	---	17400	17200	14100	12600	13000	20700	17800	2400	7300	5600	2800
13	---	16700	17200	13100	12600	11500	20700	16900	2400	8900	5700	3700
14	---	17600	16700	11600	12500	13300	19500	18400	2400	8900	1000	4800
15	---	17700	16700	12000	13900	13900	20400	18800	4400	8900	980	5800
16	---	19500	15200	11400	13900	13000	17100	18800	5900	8900	950	6800
17	---	19100	15200	11600	13900	16500	16900	16600	7200	10300	960	2900
18	---	19200	15200	11600	14000	15400	17200	19800	6500	10300	3700	1200
19	---	18800	15200	13700	13500	24500	17600	16500	10300	10300	3600	2000
20	11300	17800	15200	13100	8200	18500	16500	11900	8600	10300	3800	4400
21	11300	17700	15200	13100	10500	14800	16100	---	8300	2900	3800	4100
22	11100	17600	15600	13200	14400	15100	16300	---	6200	2900	8800	5500
23	10700	18500	15500	13600	15400	15200	16100	---	9700	2900	8700	2500
24	11100	18200	15000	13500	15800	17300	17900	---	10400	2900	9200	900
25	11000	18200	14700	13500	14400	13300	18000	---	10100	1500	8500	1600
26	11100	17500	14400	13800	16000	15500	18200	---	9800	6000	9000	870
27	12200	17500	15200	13500	8500	15500	18100	---	10100	6000	8600	1900
28	10900	17400	15100	13300	7700	15300	18800	3400	10200	1500	8600	3600
29	11000	17500	14600	14400	---	15300	18900	3300	9900	8900	8900	6000
30	11000	17500	15200	14000	---	17000	18600	10100	10100	8900	10400	7500
31	11200	---	14900	16200	---	17000	---	10100	---	8900	10400	---
MONTH	---	17100	16000	13800	13100	13900	18100	---	7300	7300	7000	6900

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	21780	32010	27120	25170	14040	40540	35280	20190	20190	17990	20590
2	11730	27930	33830	26930	25970	14180	32650	38640	19850	20390	17660	20650
3	11520	27750	33830	30560	25170	20320	32560	38730	10400	20390	17790	17790
4	13340	28020	33380	32110	26030	19920	29660	32470	10330	20320	18060	18260
5	13340	28200	33470	27570	27930	21520	37280	31470	10400	12570	18130	17860
6	---	28390	---	31920	26390	23910	34920	39450	10330	12500	18260	17660
7	---	31740	33010	26660	25040	23840	32010	39540	15600	12920	18130	19190
8	---	32830	31650	27750	28510	23440	36370	39270	15890	12570	17790	19920
9	---	32290	32200	26840	25570	23040	38090	42710	15890	15030	23380	2430
10	---	33470	32290	25240	---	22050	35920	34010	15890	14890	13130	2730
11	---	32830	32830	24570	23840	25100	32290	33190	6450	14890	12850	4350
12	---	33280	32830	26230	23840	24570	40450	34100	6040	14890	11940	6830
13	---	31740	32830	24710	23840	22110	40450	32200	6020	18130	12150	8720
14	---	33740	31830	22380	23710	24900	37910	35460	6030	18130	2920	10610
15	---	33920	31830	22910	25900	25900	39820	36280	9910	18130	2890	12220
16	---	37910	28570	21980	25970	24570	32740	36280	12430	18130	2820	13970
17	---	37000	28570	22250	25900	31380	32290	31650	14740	20190	2830	7110
18	---	37190	28480	22380	26030	29110	32920	38550	13480	20250	8650	3390
19	---	36280	28570	25570	25370	48600	33830	31380	20320	20250	8930	5000
20	21850	34100	28570	24640	16930	35730	31380	22840	17530	20250	8930	9980
21	21780	34010	28570	24710	20590	27750	30470	---	17130	7040	9000	9420
22	21580	33830	29380	24840	26640	28300	31020	---	17000	6970	17860	11730
23	20920	35640	29290	25440	29110	28570	30560	---	19260	6970	17790	6180
24	21520	35100	28200	25370	29840	33100	34460	---	20450	6970	18530	2700
25	21380	35100	27570	25370	26840	25040	34550	---	19990	4100	17460	4230
26	21450	33560	26930	25770	30290	29290	35100	---	19520	12640	18260	2640
27	23180	33470	28480	25370	17460	29200	34830	---	19920	12640	17660	4830
28	21250	33380	28300	24970	16130	28840	36370	8020	20050	4070	17600	8580
29	21380	33470	27300	26750	---	28750	36460	7880	19590	18060	17990	12640
30	21380	33560	28480	26100	---	32470	35830	19920	19990	18060	20390	15460
31	21710	---	27840	30740	---	32380	---	19920	---	18060	20450	---
MONTH	---	32720	30360	25990	24820	26510	34790	---	15020	14860	14460	10590

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	35	501	615	580	569	383	181	1200	76	729	111
2	9.5	70	521	611	589	459	291	188	531	275	463	70
3	6.8	82	511	825	564	603	281	136	166	550	327	48
4	3.6	98	496	641	597	538	216	88	148	274	234	320
5	3.6	122	480	372	479	505	272	70	3200	68	176	627
6	---	130	---	431	520	549	273	68	1370	38	138	97
7	---	163	490	363	464	528	265	48	885	26	132	57
8	---	177	487	538	463	487	388	38	958	17	673	59
9	---	192	522	596	518	487	309	623	51670	18	38500	519
10	---	208	540	634	---	429	252	496	37700	12	19700	663
11	---	213	532	883	631	480	253	235	12900	10	2190	98
12	---	225	585	779	600	451	295	129	21030	8.0	806	70
13	---	300	505	734	600	412	273	86	6900	9.0	528	61
14	---	414	567	885	595	438	235	68	4700	9.0	1600	57
15	---	577	636	782	587	485	207	57	2850	9.0	5010	49
16	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
MONTH	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]

07304500 ELK CREEK NEAR HOBART, OKLA.

LOCATION.--Lat 34°54'51", long 99°06'49", in NE1/4NE1/4 sec. 17, T.5 N., R.18 W., Kiowa County, at county road bridge, 11.0 mi (17.7 km) downstream from Little Elk Creek, 11.7 mi (18.8 km) south of Hobart, and 1.2 mi (1.9 km) west of Hobart.

DRAINAGE AREA.--549 sq mi (1,421.9 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1951, water years 1957-58 (partial-record station), October 1958 to September 1963, November 1969 to current year.
Water temperatures: October 1949 to September 1951, October 1958 to September 1961, November 1969 to current year.
Sediment records: December 1958 to September 1961.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
01-02	2.2	43	110	0	120	32	--	.20
03-10	1.5	63	190	8	170	62	--	1.7
11-20	.80	86	166	0	230	88	--	.10
21-31	.40	120	192	0	270	120	--	.20
NOV.								
01-10	.31	140	262	8	320	140	--	.50
11-20	.77	150	332	42	320	160	--	.20
21-30	1.0	160	372	32	350	180	--	.40
DEC.								
01-10	1.5	170	314	12	380	180	.02	.10
11-20	2.6	180	296	10	480	210	.05	.20
21-31	2.0	200	368	34	610	210	.27	1.2
JAN.								
01-10	1.1	200	132	0	740	230	.05	.20
11-20	3.4	180	128	4	720	190	1.9	8.4
21-31	3.9	180	180	20	790	180	.07	.30
FEB.								
01-10	3.8	180	196	0	680	190	.07	.30
11-22	5.4	190	402	22	630	180	.72	3.2
23...	13	99	238	12	360	84	.02	.10
24-28	15	170	338	0	460	180	.36	1.6
MAR.								
01-02	17	160	126	0	760	150	.05	.20
03-11	2.8	110	314	20	390	94	1.4	6.1
12-20	.63	140	290	24	380	130	.05	.20
21-31	.67	160	278	12	390	150	.02	.10
APR.								
01-10	.87	180	210	8	400	180	.14	.60
11-20	.46	200	250	8	460	200	.02	.10
21-30	.20	210	198	4	460	220	.00	.00
MAY								
01-10	.65	220	276	8	500	220	.11	.50
11-20	.32	220	312	8	460	220	1.3	5.7
21...	.01	240	456	28	460	230	.05	.20
26...	.04	220	386	12	390	210	4.5	20
29-31	.31	220	386	12	390	210	.05	.20
JUNE								
01-03	9.4	190	210	14	410	170	.16	.70
04-07	2.5	42	176	0	140	39	1.7	7.6
08-12	195	11	116	0	27	12	.81	3.6
13-21	20	22	148	0	74	25	.75	3.3
22-30	6.6	44	194	22	120	40	.09	.40
JULY								
01...	1.7	51	212	10	120	40	.09	.40
04...	1.3	16	104	0	27	10	.88	3.9
05-17	10	16	154	2	29	10	.90	4.0
23-31	66	23	138	0	95	18	.99	4.4
AUG.								
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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SEP.								
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RED RIVER BASIN

07304500 ELK CREEK NEAR HOBART, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,640 mg/l Dec. 21-31, Feb. 11-22; minimum, 94 mg/l Sept. 5.
Hardness: Maximum, 880 mg/l Dec. 21-31, Feb. 11-22; minimum, 62 mg/l Sept. 5.
Specific conductance: Maximum daily, 2,560 micromhos Jan. 19; minimum daily, 156 micromhos Sept. 5.
Water temperatures: Maximum, 28.0°C June 22; minimum, freezing point on Feb. 6, 8, 16.

Period of record.--Dissolved solids (1949-51, 1958-63, 1969-71): Maximum, 2,620 mg/l Nov. 26-30, 1958; minimum, 94 mg/l Sept. 5, 1971.
Hardness (1949-51, 1958-63, 1969-71): Maximum, 1,640 mg/l Nov. 26-30, 1958; minimum, 62 mg/l Sept. 5, 1971.
Specific conductance (1949-51, 1958-63, 1969-71): Maximum daily, 3,100 micromhos Nov. 27, 1958; minimum daily, 154 micromhos May 26, 1959.
Water temperatures (1949-51, 1958-63, 1969-71): Maximum, 35.0°C July 8, 1951; minimum, freezing point on many days during winter period.

REMARKS.--No flow May 22-25, 27-28, July 18-22.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
01-02	330	.45	1.96	170	80	1.4	552	8.2
03-10	530	.72	2.15	300	131	1.6	822	8.5
11-20	618	.84	1.33	310	174	2.1	980	8.2
21-31	740	1.01	.80	350	192	2.8	1160	8.2
NOV.								
01-10	998	1.36	.84	450	222	2.9	1430	8.5
11-20	1120	1.52	2.33	560	218	2.8	1570	8.8
21-30	1220	1.66	5.90	620	261	2.8	1720	8.7
DEC.								
01-10	1160	1.58	4.70	550	270	3.2	1660	8.5
11-20	1360	1.85	9.55	660	400	3.0	1900	8.4
21-31	1640	2.23	8.86	880	520	2.9	2160	8.7
JAN.								
01-10	1550	2.11	4.60	760	650	3.1	2140	8.2
11-20	1500	2.04	13.8	730	620	2.9	2030	8.4
21-31	1600	2.18	16.8	860	680	2.7	2130	8.7
FEB.								
01-10	1560	2.12	16.0	770	610	2.8	2040	8.3
11-22	1640	2.23	23.9	880	510	2.8	2150	8.5
23...	936	1.27	32.9	510	300	1.9	1300	8.5
24-28	1350	1.84	54.7	680	400	2.8	1900	8.3
MAR.								
01-02	1270	1.73	58.3	780	680	2.5	1890	8.0
03-11	1020	1.39	7.71	600	310	2.0	1410	8.8
12-20	1010	1.37	1.72	550	270	2.6	1450	8.8
21-31	1030	1.40	1.86	520	270	3.0	1560	8.6
APR.								
01-10	1110	1.51	2.61	480	290	3.6	1670	8.5
11-20	1220	1.66	1.52	550	330	3.7	1850	8.5
21-30	1260	1.71	.68	520	350	4.2	1890	8.4
MAY								
01-10	1370	1.86	2.40	600	360	3.9	1980	8.4
11-20	1350	1.84	1.17	600	330	3.9	1960	8.5
21...	1520	2.07	.00	720	360	3.9	2160	8.7
26...	1270	1.73	.21	580	260	4.0	1900	8.5
29-31	1270	1.73	1.06	580	260	4.0	1900	8.5
JUNE								
01-03	1060	1.44	26.9	540	340	2.8	1600	8.7
04-07	429	.58	2.90	250	110	1.2	660	8.3
08-12	168	.23	88.5	110	15	.5	282	8.3
13-21	281	.38	19.2	180	45	.7	435	8.6
22-30	617	.57	7.81	280	80	1.1	848	8.9
JULY								
01...	461	.63	2.12	261	69	1.4	710	8.6
02...	156	.21	.55	90	5	.7	262	8.0
03-17	262	.36	9.15	160	32	.9	396	8.0
23-31	301	.41	27.4	190	77	.8	472	8.0
AUG.								
[illegible]	361	[illegible]	.90	[illegible]	71	1.0	580	8.7
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.6	[illegible]	[illegible]
16...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]								
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	--	--	--	--	--	--	--

07304500 ELK CREEK NEAR HOBART, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	589	1370	1720	2200	2220	2110	1770	1910	1980	745	524	904
2	621	1340	1780	2320	2230	2120	1820	2220	1700	263	641	955
3	694	1490	1760	2380	2220	1600	1850	2240	1640	448	578	1040
4	736	1470	1770	2350	2240	1450	1840	2270	677	438	---	1070
5	777	1480	1720	2300	2240	1300	1930	2240	615	311	584	156
6	814	1530	1700	2350	2240	1360	1940	2060	665	318	590	293
7	851	1560	1690	2460	2250	1390	1900	2080	700	351	589	282
8	872	1560	1740	2490	2290	1410	1890	2110	278	355	579	322
9	912	1590	1770	2530	2280	1420	1990	1860	253	356	266	404
10	942	1620	1800	2460	2260	1420	2030	2180	290	415	267	231
11	964	1620	1840	2380	2240	1410	1930	2300	255	434	326	309
12	989	1620	1880	2340	2240	1470	1830	2250	256	494	297	383
13	1000	1600	1840	2140	2210	1500	2020	2180	296	463	328	459
14	1050	1600	2020	2320	2280	1530	2100	1990	336	---	324	523
15	1080	1590	2020	1990	2120	1540	2040	1990	386	---	326	576
16	---	1580	2030	2000	2140	1550	1960	2190	414	---	208	621
17	1110	1580	2030	2150	2160	1590	1940	2120	460	---	501	429
18	---	1600	2050	2380	2160	1590	2100	2010	493	---	261	175
19	1150	1610	2060	2560	2140	1610	2030	2210	521	---	322	173
20	1160	1650	2060	2550	2160	1610	2070	2200	537	---	753	223
21	1180	1620	---	2420	---	1680	2090	2200	508	---	632	299
22	1160	1660	2110	2390	---	1650	2220	---	583	---	532	415
23	1230	1670	2100	2370	1400	1680	2170	---	635	---	716	532
24	1240	1690	2120	2370	1940	1720	2200	---	672	464	507	475
25	1230	1740	2090	2380	1980	1730	2220	---	685	470	532	257
26	1260	1780	2140	2390	1990	1750	2120	2210	672	---	683	236
27	1320	1800	2140	2380	1910	1760	2170	---	747	435	872	331
28	1340	1840	2220	2350	2190	1780	2130	---	723	455	1010	459
29	---	1810	2210	2290	---	1820	2250	---	741	486	717	585
30	1350	1820	2240	2270	---	1840	2220	1700	765	507	555	736
31	1400	---	2310	2250	---	1870	---	2100	---	512	774	---
MONTH	1040	1620	1970	2340	2140	1620	2030	---	649	---	526	462

07304500 ELK CREEK NEAR HOBART, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	12.0	7.0	3.0	7.0	11.0	20.0	24.0	25.0	21.0	28.0
2	19.0	9.0	12.0	8.0	4.0	6.0	15.0	17.0	26.0	25.0	22.0	23.0
3	20.0	9.0	10.0	4.0	9.0	4.0	12.0	17.0	25.0	25.0	24.0	25.0
4	21.0	10.0	11.0	2.0	4.0	6.0	9.0	20.0	25.0	26.0	---	25.0
5	21.0	9.0	7.0	1.0	6.0	7.0	10.0	20.0	25.0	27.0	24.0	21.0
6	22.0	12.0	8.0	1.0	0.0	8.0	14.0	19.0	24.0	27.0	23.0	25.0
7	18.0	11.0	9.0	1.0	1.0	---	14.0	19.0	25.0	27.0	24.0	25.0
8	12.0	15.0	12.0	4.0	0.0	7.0	16.0	18.0	20.0	25.0	24.0	25.0
9	12.0	11.0	10.0	3.0	3.0	12.0	12.0	22.0	21.0	26.0	22.0	24.5
10	14.0	10.0	7.0	5.0	3.0	10.0	18.0	20.0	22.0	27.0	21.0	23.0
11	15.0	10.0	7.0	2.0	6.0	14.0	20.0	17.0	23.0	26.0	23.0	24.0
12	16.0	8.0	5.0	3.0	8.0	11.0	19.0	16.0	22.0	26.0	23.0	22.5
13	16.0	7.0	7.0	5.0	7.0	16.0	16.0	17.0	22.0	24.0	23.0	22.5
14	15.0	6.0	7.0	3.0	10.0	11.0	17.0	17.0	24.0	---	23.0	20.5
15	13.0	7.0	10.0	3.0	8.0	11.0	16.0	18.0	26.0	---	25.0	19.0
16	---	11.0	8.0	5.0	0.0	12.0	17.0	20.0	25.0	---	25.0	17.5
17	14.0	9.0	8.0	5.0	12.0	14.0	17.0	23.0	26.0	---	25.0	12.5
18	---	11.0	7.0	5.0	12.0	10.0	19.0	18.0	26.0	---	24.0	11.5
19	15.0	10.0	6.0	5.0	10.0	8.0	19.0	21.0	26.0	---	24.0	13.0
20	15.0	10.0	6.0	6.0	8.0	10.0	20.0	20.0	24.0	---	24.0	13.5
21	18.0	12.0	6.0	5.0	---	13.0	17.0	22.0	24.0	---	24.0	13.5
22	19.0	7.0	8.0	8.0	---	12.0	18.0	22.0	28.0	---	25.0	16.0
23	16.0	6.0	7.0	5.0	5.0	13.0	14.0	22.0	24.0	---	25.0	15.5
24	19.0	6.0	9.0	5.0	7.0	8.0	20.0	20.0	27.0	26.0	25.0	15.0
25	15.0	7.0	5.0	6.0	11.0	9.0	18.0	21.0	25.0	27.0	24.0	16.0
26	16.0	8.0	4.0	5.0	9.0	12.0	23.0	25.0	25.0	---	24.0	20.5
27	12.0	7.0	5.0	4.0	8.0	17.0	19.0	---	25.0	25.0	26.0	21.0
28	11.0	12.0	6.0	6.0	7.0	16.0	16.0	---	24.0	25.0	25.0	22.0
29	11.0	12.0	5.0	6.0	---	15.0	15.0	---	26.0	26.0	27.0	22.0
30	12.0	13.0	6.0	6.0	---	17.0	18.0	21.0	23.0	23.0	24.0	21.5
31	10.0	---	6.0	4.0	---	18.0	---	23.0	---	21.0	24.0	---
MONTH	16.0	9.5	7.5	4.5	6.0	11.0	16.5	20.0	24.5	---	24.0	20.0

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.

LOCATION.--Lat 34°38'04", long 99°05'47", in NW1/4NE1/4 sec.21, T.2 N., R.18 W., Tillman County, at gaging station at bridge on U.S. Highway 62, 2.5 mi (4.0 km) east of Headrick, 12.9 mi (20.8 km) upstream from Otter Creek, and at mile 33.0 (53.1 km).

DRAINAGE AREA.--4,244 sq mi (10,992 km²), of which 399 sq mi (1,033.4 km²) is probably noncontributing.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
OCT.								
05...	11	860	142	0	600	1300	.05	.20
12...	4.6	1100	90	0	740	1700	.16	.70
19...	3.4	1200	88	0	760	1800	.09	.40
26...	2.4	1300	148	0	820	2000	.14	.60
NOV.								
02...	.65	1400	76	0	770	2200	--	.90
10...	.75	1500	82	0	820	2300	--	.70
16...	.90	1300	78	0	720	2000	--	.70
23...	.70	1500	78	0	830	2300	--	.70
30...	1.8	1600	84	0	880	2400	--	.80
DEC.								
01...	2.2	1600	94	0	940	2400	--	.40
07...	3.1	1800	94	0	960	2700	--	.60
14...	4.2	2100	78	0	1000	3300	--	.40
JAN.								
05...	1.4	3400	74	0	1300	5300	--	--
11...	10	3100	72	0	1100	4800	.09	.40
18...	11	3100	74	0	1100	4800	.00	.00
25...	9.0	3600	74	0	1300	5600	--	--
FEB.								
01...	5.8	3500	74	0	1300	5500	--	--
08...	.70	3800	72	0	1400	6200	--	--
15...	9.5	3900	70	0	1100	6500	--	--
22...	1.8	3700	72	0	1300	6000	--	--
MAR.								
01...	20	3500	76	0	1300	5800	--	--
08...	16	3500	60	0	1400	5600	--	--
15...	7.0	3800	72	0	1400	6200	--	--
23...	3.0	3900	64	0	1500	6200	--	--
29...	4.6	3800	72	0	1400	6100	--	--
APR.								
05...	.70	3500	54	0	1400	5800	--	--
12...	.90	3300	60	0	1400	5300	--	--
19...	.20	2600	72	0	1200	4200	.34	1.5
26...	.90	2900	78	0	1400	4700	.43	1.9
MAY								
03...	.10	2300	78	0	1100	3800	.54	2.4
10...	4.6	1600	60	0	920	2600	.20	.90
24...	10	1500	26	0	900	2400	.11	.50
31...	31	1600	92	0	790	2600	.07	.30
JUNE								
08...	40	4900	110	0	2000	8000	--	--
14...	1170	130	96	0	320	180	2.5	11
21...	56	1200	120	0	760	2000	.54	2.4
28...	11	2100	80	0	1000	3400	.29	1.3
JULY								
06...	98	830	88	0	380	1300	.05	.20
12...	4.2	1800	80	0	820	2900	.38	1.7
19...	.30	2000	56	0	980	3300	.27	1.2
25...	510	300	88	18	190	460	.11	.50
AUG.								
02...	344	1400	118	0	960	2200	.41	1.8
09...	8.0	2100	132	0	1100	3400	.29	1.3
16...	330	240	98	0	110	380	.70	3.1
23...	66	1200	166	0	520	2000	.20	.90
30...	20	1300	182	0	980	2000	.29	1.3
SEP.								
08...	8000	36	106	0	26	40	1.6	6.9
13...	88	980	154	8	510	1600	.61	2.7
20...	670	910	110	2	260	810	.72	3.2
27...	820	780	110	0	460	1200	.68	3.0

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water years 1957-59 (partial-record station), October 1959 to September 1963, July 1968 to current year.
Water temperatures: November 1959 to September 1963, July 1968 to current year.

REMARKS.--No flow Apr. 23, May 6-8, 12-22, 26-29.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
05...	3130	4.26	93.0	780	664	13	5070	8.3
12...	4000	5.44	49.7	870	796	16	6410	8.0
19...	4080	5.55	37.4	870	798	18	6640	8.0
26...	4580	6.23	29.7	990	869	18	7330	8.2
NOV.								
02...	4920	6.69	8.63	970	906	20	7740	8.0
10...	5080	6.91	10.3	1000	933	21	8120	8.0
16...	4600	6.26	11.2	920	856	19	7280	8.0
23...	5200	7.07	9.83	1000	936	21	8140	7.9
30...	5400	7.34	26.2	1100	1030	21	8540	8.0
DEC.								
01...	5460	7.43	32.4	1100	1020	21	8610	8.1
07...	6100	8.30	51.0	1200	1120	23	9710	8.0
14...	7180	9.76	81.4	1300	1240	25	11300	8.0
JAN.								
05...	10800	14.7	40.8	1800	1700	35	16800	8.0
11...	9800	13.3	265	1500	1400	35	15800	8.0
18...	9660	13.2	287	1600	1500	34	15200	8.1
25...	11300	15.4	274	1800	1700	37	17500	8.0
FEB.								
01...	11300	15.4	177	1800	1700	36	17400	8.1
08...	12100	16.5	22.9	2000	1900	37	18600	8.0
15...	12400	16.9	318	2000	1900	38	19000	7.9
22...	11800	16.0	57.3	1800	1700	38	18000	8.0
MAR.								
01...	11800	16.0	637	1800	1700	36	18300	8.0
08...	11300	15.4	488	1900	1900	35	17300	7.9
15...	12200	16.6	230	2000	1900	37	18700	8.0
23...	12300	16.7	99.6	2000	1900	38	18600	7.8
29...	12100	16.5	150	2000	1900	37	18500	8.0
APR.								
05...	12200	16.6	23.0	2100	2100	33	18200	8.2
12...	11000	15.0	26.7	1900	1900	33	16700	8.2
19...	8880	12.1	4.80	1600	1500	28	13600	8.1
26...	9650	13.1	23.4	1800	1700	30	15100	8.1
MAY								
03...	8560	11.6	2.31	1500	1400	26	12600	8.1
10...	5810	7.90	72.2	1100	1100	21	8880	7.9
24...	5570	7.58	150	1100	1100	20	8390	7.9
31...	5630	7.66	532	1000	930	22	8650	8.3
JUNE								
08...	17100	23.3	1850	2800	2700	40	23800	8.1
14...	932	1.27	2800	420	340	2.6	1370	8.2
21...	4950	6.73	700	1100	1000	16	7660	8.3
28...	7560	10.3	224	1400	1300	24	11300	8.0
JULY								
06...	3260	4.43	482	580	510	15	5030	8.0
12...	6460	8.79	73.2	1200	1190	23	9840	7.7
19...	7100	9.66	5.75	1400	1400	23	10000	7.9
26...	1250	1.70	1720	300	200	7.5	2000	8.0
AUG.								
02...	5390	7.33	5010	1200	1100	18	7900	8.3
09...	8000	10.9	173	1600	1500	23	11600	8.3
16...	880	1.20	700	210	130	7.2	1610	8.3
23...	4960	6.49	585	910	770	17	7010	8.5
30...	4660	6.34	562	880	730	19	7200	8.5
SEP.								
06...	208	.28	2470	88	11	1.6	380	8.3
13...	3600	4.89	629	770	630	15	5710	8.4
20...	1840	2.50	3080	600	310	11	3110	8.4
27...	2090	3.00	6480	610	500	14	4930	8.1

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3550	7300	8890	14900	17300	18100	18900	---	8990	10300	8480	10200
2	3910	8370	9020	14300	16200	19200	18400	12900	9270	10400	7730	6820
3	4320	7670	8950	14200	18500	15300	17100	12600	22100	5320	8470	9440
4	4700	7740	9660	15400	18000	17400	18000	11200	13100	9370	9090	9780
5	5070	7830	9600	15800	18100	15600	17500	10600	5380	13700	10200	1150
6	5710	7740	9730	16100	17600	16100	17400	---	5700	4020	10800	346
7	6220	7630	9840	14600	18300	17200	16900	---	6300	6300	11400	1140
8	5860	7230	10210	16200	18300	17400	16700	---	23300	7700	10900	2380
9	6100	7680	9990	15300	17600	16800	17200	7100	6070	7600	11800	3680
10	6780	8200	9950	14300	17100	16900	17000	6880	1580	7590	12000	5030
11	6170	8330	10200	15200	16800	17000	16900	12700	6450	8730	3660	4360
12	7050	7710	10700	13600	17200	17600	16600	---	1900	10800	1890	5350
13	6340	8790	9890	12200	18000	17500	16100	---	2220	8460	3800	5400
14	5560	7920	11400	12600	18600	17900	14500	---	1290	11000	5450	4970
15	6100	7590	11100	12200	18700	18400	14200	---	1740	10200	5200	6760
16	6670	7280	11400	15200	18800	18200	14200	---	6140	12800	2560	8560
17	6110	7360	12100	15300	19700	19300	14300	---	5400	10700	1080	3870
18	6600	7720	12000	15100	19700	19400	13900	---	8370	10300	868	4350
19	6890	7800	12400	15500	18700	19000	14800	---	5110	11200	1600	863
20	7380	7800	13600	17900	19400	18800	12800	---	4500	12400	3430	2670
21	6890	7810	14000	17900	17800	18800	12600	---	8570	10300	6370	3190
22	6910	8260	13700	18300	17800	---	11900	---	9570	10900	6230	3770
23	7120	7970	13600	18100	16500	21000	---	7840	7890	6960	6400	4490
24	7220	7850	16400	17700	15500	18300	13100	8390	8430	7660	6780	7250
25	7380	8260	16000	17300	15500	18200	14200	8610	8620	2080	6610	4950
26	7410	8390	16400	17000	17800	18500	15100	---	15360	3950	17000	1250
27	7630	8430	16300	17200	16700	18700	14900	---	10200	10700	10500	5020
28	8000	8540	16000	17200	17900	19300	13200	---	11300	9500	7680	4470
29	7460	8770	15300	17100	---	18600	13900	---	11800	8270	5000	3960
30	7650	8600	15300	17700	---	18400	13100	9360	10800	8490	8310	4820
31	7730	---	15600	17300	---	18800	---	8650	---	14600	7040	---
MONTH	6400	7950	12280	15760	17790	18080	15350	---	8280	9110	7000	4750

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	10.5	14.5	7.0	---	---	15.0	---	---	---	---	---
2	19.0	10.0	12.5	6.5	---	---	14.5	---	---	---	---	---
3	20.0	9.0	13.0	6.5	---	---	14.0	---	---	---	---	---
4	23.0	9.0	10.5	1.0	---	---	12.0	---	---	---	---	---
5	23.5	10.0	11.0	1.0	---	---	11.5	---	---	---	---	---
6	25.5	10.5	8.0	1.0	---	---	12.0	---	---	---	---	---
7	23.5	12.5	9.0	1.0	---	---	13.5	---	---	---	---	---
8	12.0	13.5	12.5	1.0	---	---	15.5	---	---	---	---	---
9	12.5	11.5	12.0	1.5	---	---	17.0	---	---	---	---	---
10	14.5	12.0	14.0	3.5	---	---	18.5	---	---	---	---	---
11	18.5	---	8.0	5.0	---	---	19.5	---	---	---	---	---
12	18.0	9.0	8.0	2.5	---	---	19.5	---	---	---	---	---
13	18.5	---	7.5	4.5	---	---	17.5	---	---	---	---	---
14	17.5	---	7.0	4.0	---	---	17.0	---	---	---	---	---
15	13.5	---	9.0	5.0	---	---	17.5	---	---	---	---	---
16	12.5	---	9.0	---	---	---	17.5	---	---	---	---	---
17	13.0	---	8.5	---	---	---	19.0	---	---	---	---	---
18	13.5	---	10.0	---	---	---	19.5	---	---	---	---	---
19	15.0	---	8.5	---	---	---	20.0	---	---	---	---	---
20	17.0	---	8.0	---	---	---	18.0	---	---	---	---	---
21	18.5	11.5	8.0	---	---	---	18.0	---	---	---	---	---
22	20.0	9.5	8.5	---	---	---	19.5	---	---	---	---	---
23	20.0	8.5	8.5	---	---	---	---	20.5	---	---	---	---
24	19.0	5.0	8.0	---	---	9.0	---	---	---	---	---	---
25	18.5	8.5	8.0	---	---	11.5	---	---	---	---	---	---
26	19.0	11.5	8.0	---	---	14.0	---	---	---	---	---	---
27	13.5	9.0	8.0	---	---	17.5	---	---	---	---	---	---
28	13.5	10.0	7.0	---	---	17.5	---	---	---	---	---	---
29	13.0	10.0	7.5	---	---	13.5	---	---	---	---	---	---
30	12.5	10.5	8.0	---	---	18.0	---	---	---	---	---	---
31	13.0	---	8.0	---	---	18.5	---	---	---	---	---	---
MONTH	17.0	---	8.5	---	---	---	---	---	---	---	---	---

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	760	930	1100	1300	1300	1400	---	940	810	680	810
2	410	870	730	1100	1200	1400	1400	990	740	820	800	920
3	450	800	930	1100	1400	1200	1300	970	1600	550	880	760
4	490	810	770	1200	1300	1300	1300	880	1000	750	730	780
5	550	820	770	1200	1300	1200	1300	830	560	1000	810	120
6	590	810	780	1200	1300	1200	1300	---	590	420	650	36
7	650	790	780	1100	1400	1300	1300	---	660	660	890	120
8	610	750	810	1200	1400	1300	1300	---	1700	800	860	250
9	640	800	790	1200	1300	1300	1300	740	630	790	920	380
10	710	850	790	1100	1300	1300	1300	930	160	790	930	520
11	640	870	610	1100	1300	1300	1300	980	670	910	380	450
12	730	800	840	1000	1300	1300	1200	---	200	850	200	560
13	660	920	790	940	1300	1300	1200	---	230	880	400	560
14	580	830	890	970	1400	1300	1100	---	130	860	570	520
15	640	790	870	940	1400	1400	1100	---	180	810	540	700
16	690	760	890	1100	1400	1400	1100	---	640	990	270	690
17	640	770	940	1200	1500	1400	1100	---	560	840	110	400
18	690	800	930	1100	1500	1400	1100	---	450	810	90	450
19	720	810	990	1200	1400	1400	1100	---	530	880	170	90
20	770	810	1000	1300	1400	1400	990	---	760	960	360	300
21	720	810	1100	1300	1300	1400	970	---	890	810	660	330
22	720	860	1000	1400	1300	---	920	---	760	860	650	390
23	740	830	1100	1300	1200	1500	---	820	820	730	720	470
24	750	820	1200	1300	1200	1400	1000	870	880	800	710	760
25	770	860	1200	1300	1200	1400	1100	900	900	220	710	520
26	770	870	1200	1300	1300	1400	1100	---	1200	410	1500	130
27	790	880	1200	1300	1300	1400	1100	---	810	840	830	520
28	850	890	1200	1300	1300	1400	1000	---	880	760	800	470
29	780	910	1200	1300	---	1400	1100	---	920	860	520	410
30	800	900	1200	1300	---	1400	1000	750	850	860	860	500
31	810	---	1200	1300	---	1400	---	900	---	1100	730	---
MONTH	670	850	960	1200	1300	1300	1200	---	730	790	640	470

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	1.4	5.7	21	22	80	6.1	---	88	11	210	37
2	20	1.5	4.9	21	22	134	4.1	0.26	50	97	102	32
3	18	1.4	7.0	27	28	122	3.5	0.26	87	115	74	20
4	17	1.3	6.4	13	26	84	3.8	0.30	38	45	39	78
5	16	1.3	6.0	9.3	27	70	2.4	0.11	41	82	33	1890
6	15	1.4	8.1	11	24	82	4.9	---	18	110	32	522
7	12	1.4	6.6	10	9.4	59	5.1	---	6.3	74	26	184
8	9.4	1.4	7.4	11	15	58	3.4	---	165	45	23	185
9	4.8	1.5	7.9	17	24	51	3.1	15	320	24	20	158
10	4.5	1.7	4.5	23	38	51	2.4	7.7	808	19	16	132
11	8.2	1.8	7.4	31	41	48	2.4	1.6	[illegible]	11	[illegible]	178
12	8.3	1.7	8.4	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
13	7.5	2.0	4.7	[illegible]	[illegible]	[illegible]	1.3	---	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	1.8	10	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
16	7.1	[illegible]	13	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	2.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	2.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	2.2	17	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	2.2	13	[illegible]	[illegible]	17	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	870	2100	2600	4700	5500	5800	6100	---	2700	3100	2500	3100
2	1000	2400	2700	4500	5200	6200	5900	4000	2800	3100	2200	2600
3	1100	2200	2600	4500	6000	4800	5500	3900	7200	1400	2500	2800
4	1300	2200	2900	4900	5800	5600	5800	3400	4100	2800	2700	2900
5	1400	2300	2900	5000	5800	5000	5600	3200	1400	4500	3100	240
6	1500	2200	2900	5100	5600	5100	5600	---	1500	1100	3300	---
7	1700	2200	3000	4600	5900	5500	5400	---	1700	1700	3500	240
8	1600	2000	3100	5200	5900	5600	5300	---	7600	2200	3300	590
9	1700	2200	3000	4800	5600	5400	5500	2000	1400	2200	3600	960
10	1900	2400	3000	4500	5500	5400	5400	2600	370	2200	3700	1300
11	1700	2400	3100	4800	5400	5400	5400	5900	1800	2600	960	1200
12	2000	2200	3200	4300	5500	5600	5300	---	460	3300	460	1400
13	1700	2600	3000	3800	5800	5600	5100	---	550	2500	1000	1500
14	1500	2300	3500	3900	6000	5800	4600	---	280	3400	1500	1300
15	1600	2200	3400	3800	6000	5900	4500	---	410	3100	1600	1900
16	1800	2100	3500	4800	6100	5900	4500	---	1700	4000	650	2500
17	1700	2100	3700	4800	6400	6200	4500	---	1500	3200	230	1000
18	1800	2200	3700	4800	6400	6300	4400	---	1200	3100	160	1200
19	1900	2200	4000	4900	6000	6100	4600	---	1400	3000	370	160
20	2100	2200	4300	5800	6300	6100	4000	---	2800	3800	990	730
21	1900	2200	4400	5600	5700	6100	3900	---	2500	3100	1700	630
22	1900	2400	4300	5900	5700	---	3700	---	2900	3300	1700	990
23	2000	2300	4300	5800	5300	6800	---	2300	2300	1900	1900	1200
24	2000	2300	5200	5700	4900	5900	4100	2000	2500	2200	1900	2100
25	2100	2400	5300	5500	4900	5900	4500	2500	2500	910	1400	1300
26	2100	2400	5200	5400	5700	6000	4800	---	4900	1000	5400	270
27	2200	2500	5200	5500	5300	6000	4700	---	3100	3200	3200	1300
28	2300	2500	5100	5500	5800	6200	4100	---	3500	2900	2200	1200
29	2100	2600	4800	5500	---	6000	4400	---	3600	2600	1300	1000
30	2200	2500	4800	5700	---	5900	4100	2800	3300	2500	1700	1300
31	2200	---	5000	5500	---	6100	---	2900	---	4400	2000	---
MONTH	1800	2300	3800	5000	5700	5800	4900	---	2500	2700	2400	1300

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	---
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2050	4640	5680	9610	11180	11700	12220	---	5740	6600	5410	6530
2	2420	5340	5760	9220	10460	12420	11900	8300	5930	6660	4920	5630
3	2690	4880	5720	9150	11960	9870	11050	8100	14320	3340	5400	6040
4	2940	4920	6180	9930	11630	11240	11630	7190	8430	5990	5810	6260
5	3180	4980	6140	10200	11700	10070	11510	6800	3380	8820	6530	614
6	3600	4920	6230	10390	11570	10390	11240	---	3590	2490	6930	---
7	3430	4850	6300	9410	11830	11110	10920	---	3980	3980	7320	607
8	3700	4590	6540	10460	11830	11240	10780	---	15100	4900	6490	1420
9	3850	4890	6400	9870	11570	10850	11110	4510	3830	4850	7580	2270
10	4300	5230	6370	9220	11050	10920	10980	5670	896	4830	7710	3160
11	3900	5310	6530	9800	10850	10980	10920	8170	4080	5570	2260	2710
12	4470	4900	6660	8760	11110	11370	10720	---	1110	6930	1100	3360
13	4010	5610	6530	7840	11630	11310	10390	---	1310	5400	2350	3400
14	3510	5040	7320	8100	12030	11570	9350	---	707	7060	3430	3110
15	3650	4830	7120	7840	12090	11900	9150	---	1000	6530	3270	4290
16	4220	4620	7320	9600	12160	11770	9150	---	3880	8230	1540	5460
17	3880	4680	7780	9870	12750	12490	9220	---	3390	6860	569	2390
18	4180	4910	7710	9740	12750	12550	8950	---	2720	6600	429	2700
19	4370	4970	8300	10000	12090	12290	9410	---	3200	7190	406	427
20	4690	4960	8760	11570	12550	12160	8230	---	6080	7970	2100	1740
21	4370	4970	9020	11570	11500	12160	8100	---	5470	6600	4030	1950
22	4380	5270	8820	11830	11500	---	7650	---	6120	6990	3940	2330
23	4520	5080	8890	11700	10650	13600	---	4990	5030	4410	4370	2800
24	4590	5000	10590	11440	10000	11830	8430	5350	5380	4870	4300	4600
25	4690	5260	10720	11180	10000	11770	9150	5490	5500	1220	4310	3100
26	4710	5350	10590	10980	11500	11960	9740	---	9910	2450	10980	679
27	4850	5360	10520	11110	10780	12090	9610	---	6530	6860	6730	3150
28	5090	5450	10330	11110	11570	12490	8500	---	7250	6080	4890	2790
29	4740	5600	9870	11050	---	12030	8950	---	7580	5270	3130	2420
30	4880	5480	9870	11440	---	11900	8430	5980	6930	5420	3990	3020
31	4920	---	10070	11180	---	12160	---	5520	---	9410	4470	---
MONTH	4050	5060	7690	10170	11500	11670	9900	---	5280	5820	4440	3070

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	8.8	35	179	193	695	53	---	543	93	1280	300
2	118	9.4	39	177	189	905	35	2.2	400	792	624	198
3	109	8.6	43	225	242	1040	30	2.2	773	695	452	161
4	103	8.0	52	113	229	729	31	2.5	319	356	314	608
5	94	8.1	48	80	237	598	25	0.91	247	691	265	9690
6	88	8.6	49	95	209	533	42	---	107	653	243	---
7	75	8.5	53	86	86	510	44	---	26	452	217	994
8	60	8.7	60	93	131	486	29	---	1470	278	189	1080
9	57	9.2	64	149	209	439	27	91	1990	170	164	936
10	58	11	69	199	328	442	21	47	4400	113	151	792
11	50	11	60	265	352	415	21	12	26780	76	3290	1070
12	51	11	72	227	360	430	17	---	3220	71	1570	1170
13	45	12	70	201	346	336	11	---	5790	34	920	568
14	36	12	83	212	296	262	2.5	---	2230	27	943	353
15	39	11	94	197	297	263	2.5	---	1350	17	2780	359
16	43	11	107	254	305	273	7.4	---	4020	20	1850	354
17	40	12	113	266	341	270	10.0	---	1960	13	1400	336
18	38	13	119	284	379	234	4.8	---	873	7.1	674	12850
19	35	13	143	297	359	166	7.6	---	692	3.9	595	3610
20	35	13	147	344	319	151	6.7	---	1030	2.2	755	3970
21	31	17	173	344	404	135	2.2	---	827	1.8	859	1500
22	28	20	202	319	283	---	2.1	---	876	9.4	574	860
23	24	14	214	281	489	136	---	67	678	93	520	536
24	25	19	224	272	513	104	14	144	494	1210	363	895
25	25	20	217	269	567	121	44	15	357	1600	233	6530
26	31	19	220	246	652	165	21	---	508	1850	1660	2050
27	30	19	233	228	611	176	10	---	265	2090	1070	7450
28	25	24	217	228	625	199	4.6	---	196	902	541	3150
29	18	27	213	242	---	153	9.7	---	178	498	355	1720
30	14	28	205	241	---	132	9.1	81	122	336	291	1670
31	12	---	193	202	---	95	---	522	---	2920	241	---
MONTH	50	14	124	220	341	353	19	---	2090	519	818	2270

07311000 EAST CACHE CREEK NEAR WALTERS, OKLA.

LOCATION.--Lat 34°21'44", long 98°16'56", on south line of SE1/4SE1/4 sec. 19, T.2 S., R.10 W., Cotton County, at gaging station on State Highway 53, 1.75 mi (2.8 km) west of Walters, 12.2 mi (19.6 km) upstream from West Cache Creek, and at mile 19.7 (31.7 km).

DRAINAGE AREA.--675 sq mi (1,748.2 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1953, October 1960 to September 1961, October 1962 to September 1963, October 1969 to current year.
Water temperatures: October 1951 to September 1953, October 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01-10	22	59	140	8	53	52	25	343
11-20	19	72	170	0	61	65	36	423
21-31	17	67	148	8	54	59	32	380
NOV.								
01-15	15	74	94	12	66	71	32	419
16-29	23	68	180	0	70	64	35	445
30...	18	36	112	0	49	27	.20	226
DEC.								
01-10	17	69	194	0	68	64	27	447
11-20	19	76	180	0	65	70	39	455
21-31	17	74	184	0	65	66	42	457
JAN.								
01-09	20	67	148	0	62	64	44	436
10...	20	640	88	6	160	980	35	2160
11-14	21	68	172	2	62	65	57	447
15...	22	270	283	16	290	400	20	1440
16-20	21	70	168	0	62	64	50	448
21-31	20	74	152	4	67	65	42	413
FEB.								
01-10	20	77	174	4	72	66	46	445
11-23	28	72	146	0	65	67	36	404
24...	53	36	124	8	28	20	.30	219
25-28	25	49	114	10	45	46	19	298
MAR.								
01-10	21	76	168	14	62	64	38	468
11-20	19	76	178	0	65	65	39	412
21-31	18	80	140	12	65	70	34	386
APR.								
01-10	15	85	166	8	64	72	34	458
11-20	23	79	192	10	71	69	36	468
21-30	17	70	168	6	55	68	44	422
MAY								
01-10	17	80	166	0	60	72	51	441
11-12	47	88	44	60	64	77	43	417
13-21	15	67	146	0	51	59	38	352
22-29	31	87	102	26	62	78	51	420
30-31	28	55	32	56	47	43	9.2	274
JUNE								
01-02	1300	12	36	20	17	9.6	.30	111
03-05	118	20	96	14	25	13	3.5	185
06-08	22	53	124	20	39	30	5.0	264
09-22	29	68	124	32	59	62	8.6	374
23-27	48	28	64	32	27	21	4.6	210
28-30	11	52	166	10	45	44	8.4	334
JULY								
01-04	19	73	40	82	58	71	5.8	388
05...	32	42	0	0	28	24	2.0	202
06-10	20	49	26	58	51	45	4.5	281
11-23	6.4	77	134	38	84	77	2.6	439
24...	140	59	128	34	48	40	5.4	365
25-27	104	23	36	46	22	15	4.5	171
28-30	47	44	2	72	50	38	4.1	267
31...	98	20	114	10	17	18	5.0	178
AUG.								
01-05	15	37	20	82	26	24	1.5	228
06-09	11	64	166	8	62	61	17	399
10-13	44	37	110	12	38	32	6.8	249
14-16	2140	16	20	40	8.0	5.0	.30	128
17-19	593	23	126	4	18	15	4.1	197
20-21	43	39	104	32	33	35	3.6	288
22-31	25	64	144	22	57	62	12	387
SEP.								
01-04	19	68	192	4	62	65	24	412
05-09	61	38	132	0	30	34	9.6	254
10-19	20	73	196	0	61	70	21	418
20-24	40	38	132	0	29	32	17	241
25-27	636	21	108	0	14	14	9.6	161
28-30	38	33	112	22	31	27	8.5	241
WTD. AVG.	--	35	84	21	29	28	6.0	231
TIME WTD. AVG.	58	68	143	13	58	62	28	391
TOT. LOAD (TONS)	--	2020	4840	1190	1660	1610	645	13200

07311000 EAST CACHE CREEK NEAR WALTERS, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 2,160 mg/l Jan. 10; minimum, 111 mg/l June 1-2.
Hardness: Maximum, 960 mg/l Aug. 1-5; minimum,62 mg/l Aug. 14-16.
Specific conductance: Maximum daily, 3,860 micromhos Jan. 10; minimum daily, 150 micromhos June 1, 2.
Water temperatures: Maximum, 31.0°C July 15; minimum, 2.0°C Jan. 7, 8, Feb. 7.

Period of record.--Dissolved solids (1951-53, 1969-71): Maximum, 2,160 mg/l Jan. 10, 1971; minimum, 75 mg/l May 18-19, 1952.
Hardness (1951-53, 1969-71): Maximum, 960 mg/l Aug. 1-5, 1971; minimum, 52 mg/l Nov. 1-2, 1951.
Specific conductance (1951-53, 1969-71): Maximum daily, 3,860 micromhos Jan. 10, 1971; minimum daily, 148 micromhos May 18, 1952.
Water temperatures (1951-53, 1969-71): Maximum, 38.5°C July 29, 1970: minimum, freezing point on Jan. 8, 20-24, 1970.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-10	.47	20.4	150	22	2.1	578	8.5
11-20	.58	21.7	170	31	2.4	678	8.0
21-31	.52	17.4	160	25	2.5	625	8.6
NOV.							
01-15	.57	17.0	144	47	2.7	665	8.9
16-29	.61	27.6	180	32	2.2	700	8.1
30...	.31	11.0	96	4	1.6	355	8.1
DEC.							
01-10	.61	20.5	190	31	2.2	708	8.3
11-20	.62	23.3	170	22	2.5	715	8.2
21-31	.62	21.0	190	39	2.3	717	8.2
JAN.							
01-09	.59	23.5	190	36	2.1	700	8.3
10...	2.94	117	300	220	16	3870	8.5
11-14	.61	25.3	190	46	2.1	711	8.4
15...	1.98	85.5	560	300	5.0	2160	8.6
16-20	.61	25.4	180	42	2.3	712	8.3
21-31	.58	22.3	160	24	2.5	664	8.5
FEB.							
01-10	.61	24.0	170	21	2.6	713	8.4
11-23	.55	30.5	140	20	2.6	655	8.1
24...	.30	31.3	100	0	1.7	370	8.7
25-28	.41	20.1	120	10	1.9	475	8.9
MAR.							
01-10	.64	26.5	180	19	2.5	693	8.7
11-20	.56	21.1	170	24	2.5	696	8.2
21-31	.52	18.8	150	15	2.6	672	8.8
APR.							
01-10	.62	18.5	170	4	2.8	749	8.6
11-20	.64	29.1	200	26	2.4	741	8.6
21-30	.57	19.4	160	12	2.4	688	8.5
MAY							
01-10	.60	20.2	160	24	2.8	712	8.2
11-12	.57	52.4	140	4	3.2	684	9.0
13-21	.48	14.3	140	20	2.5	578	8.3
22-29	.57	35.2	150	23	3.1	693	8.8
30-31	.37	20.7	110	0	2.3	457	9.7
JUNE							
01-02	.15	390	64	1	.7	175	9.3
03-05	.26	57.4	100	0	.9	288	8.9
06-08	.36	15.7	140	5	1.3	412	9.1
09-22	.51	24.3	160	5	2.3	629	9.1
23-27	.24	27.2	110	4	1.2	325	9.2
28-30	.45	9.92	160	7	1.8	531	8.6
JULY							
01-04	.53	19.9	170	0	2.4	640	10.0
05...	.27	17.5	76	--	2.1	337	10.0
06-10	.38	15.2	120	0	1.9	463	10.0
11-23	.60	7.59	190	17	2.4	698	9.3
24...	.50	138	140	0	2.2	558	8.7
25-27	.23	48.0	100	0	1.0	276	9.6
28-30	.36	33.9	140	18	1.6	429	10.0
31...	.24	47.1	100	0	.9	282	8.7
AUG.							
01-05	.31	9.23	960	0	1.6	347	10.0
06-09	.54	11.9	170	19	2.1	630	8.6
10-13	.34	29.5	110	0	1.5	389	9.0
14-16	.17	740	62	0	.9	190	9.9
17-19	.27	515	100	0	.1	298	8.5
20-21	.38	31.1	150	0	1.5	417	9.5
22-31	.53	26.1	170	15	2.1	612	9.0
SEP.							
01-04	.58	21.1	180	16	2.2	674	8.5
05-09	.35	41.8	110	2	1.6	403	8.0
10-19	.57	22.6	170	9	2.4	686	7.9
20-24	.33	26.0	110	2	1.6	398	6.8
25-27	.22	276	82	0	1.0	267	7.7
28-30	.33	24.7	130	1	1.3	395	8.4
WTD. AVG.	.31	--	106	7	1.3	365	9.0
TIME WTD. AVG.	.53	--	170	20	2.3	650	8.6
TOT. LOAD (TONS)	--	--	--	--	--	--	--

07311000 EAST CACHE CREEK NEAR WALTERS, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 (CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	729	702	707	735	579	790	849	150	645	355	646
2	587	726	690	---	748	702	770	803	210	703	349	665
3	622	742	705	687	729	704	778	808	242	710	340	683
4	606	749	709	698	736	692	766	546	299	774	363	719
5	627	761	745	708	746	727	725	805	322	337	434	368
6	597	748	---	718	766	712	818	745	377	514	595	411
7	609	754	722	705	756	728	784	745	441	471	598	470
8	625	769	745	724	784	742	---	773	464	558	681	348
9	614	763	765	720	749	724	786	787	552	550	686	413
10	619	769	731	3860	746	700	811	790	582	629	332	507
11	780	769	782	705	753	718	836	802	645	656	449	641
12	634	754	749	708	---	734	795	872	686	682	354	598
13	647	724	772	713	779	765	806	605	709	682	448	683
14	620	721	730	708	747	746	753	665	728	679	219	745
15	641	733	750	2180	742	737	710	639	722	703	165	758
16	629	733	750	733	748	739	822	568	740	727	174	779
17	701	---	739	732	754	720	816	524	717	736	247	770
18	696	751	---	718	730	746	789	647	681	765	322	757
19	702	758	751	714	744	764	833	672	705	806	319	735
20	712	745	739	702	746	765	745	773	702	816	412	377
21	683	736	721	712	649	780	769	768	679	908	482	445
22	563	722	742	721	728	764	727	866	659	808	570	419
23	600	781	716	727	706	765	761	883	317	794	599	392
24	621	756	732	727	373	766	743	896	333	558	593	327
25	620	682	734	719	572	767	754	884	325	256	616	242
26	667	---	---	747	535	767	778	850	344	302	668	248
27	680	682	735	733	413	789	781	818	389	309	684	291
28	686	---	719	717	532	750	798	768	501	386	698	366
29	672	677	718	761	---	766	782	---	547	473	702	413
30	689	355	---	737	---	759	852	506	573	576	681	432
31	710	---	730	742	---	761	---	555	---	282	628	---
MONTH	645	726	734	873	693	738	782	740	511	606	476	522

07311200 BLUE BEAVER CREEK NEAR CACHE, OKLA.

(Hydrologic bench-mark station)

LOCATION.--Lat 34°37'24", long 98°33'48", in NE1/4NE1/4 sec.28, T.2 N., R.13 W., Comanche County, at gaging station at bridge on U.S. Highway 62, 3,000 ft (914.4 m) upstream from St. Louis - San Francisco Railway Co. bridge, 4.0 mi (6.4 km) east of Cache, and at mile 12.0 (19.3 km).

DRAINAGE AREA.--24.6 sq mi (63.7 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
OCT.												
07...	.04	14	22	5.1	18	2.9	106	0	17	11	.4	.40
30...	.03	14	22	5.4	18	2.5	102	0	21	10	.4	.10
NOV.												
19...	.04	14	19	7.0	17	2.4	99	0	19	11	.4	.50
DEC.												
09...	.04	12	20	6.1	17	1.7	93	0	19	10	.5	.50
29...	.04	12	19	5.4	17	1.3	74	0	29	10	.4	.20
JAN.												
20...	.04	11	18	5.8	16	1.1	76	0	27	9.5	.4	.00
FEB.												
11...	.05	10	18	4.9	17	1.2	76	0	29	9.5	.3	.00
MAR.												
04...	.08	7.0	18	4.9	17	1.3	78	0	27	10	.3	.30
APR.												
07...	.02	--	--	--	24	--	88	0	31	11	--	.60
SEP.												
09...	.31	--	--	--	16	--	100	0	20	8.0	--	1.2
29...	9.7	--	--	--	--	--	--	--	--	--	--	--

07311000 EAST CACHE CREEK NEAR WALTERS, OKLA.--Continued

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971 (CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	13.0	12.0	5.0	5.5	10.0	16.5	21.5	20.5	28.5	24.5	26.5
2	21.0	12.0	12.5	---	4.5	9.0	15.5	22.0	22.0	28.5	24.0	26.5
3	21.0	10.0	10.0	7.0	6.5	6.0	16.0	21.5	24.0	28.5	25.0	27.0
4	21.0	9.5	11.5	5.0	6.0	7.0	14.0	22.0	26.0	28.5	26.0	27.0
5	21.5	9.5	11.5	4.0	7.0	10.0	13.0	23.0	26.0	29.5	25.0	26.5
6	22.0	9.0	---	4.0	5.0	9.5	14.0	24.0	27.0	30.0	25.0	27.5
7	23.0	11.5	9.5	2.0	2.0	9.0	15.0	24.0	28.0	30.0	25.0	28.0
8	17.0	12.5	11.5	2.0	3.0	10.5	16.0	22.0	27.0	30.0	27.0	28.5
9	15.5	12.0	10.5	3.5	3.0	11.0	18.0	22.0	27.0	30.0	27.0	27.5
10	15.5	11.5	13.0	4.0	5.0	12.0	20.5	23.0	27.0	30.0	26.5	27.5
11	15.5	10.5	9.5	4.5	5.5	12.5	23.0	23.0	27.0	30.0	27.0	27.5
12	16.0	9.5	8.0	3.5	---	14.0	22.0	21.5	27.5	30.0	26.0	26.0
13	17.0	9.0	8.5	4.0	6.0	14.0	20.0	21.5	26.5	30.0	25.5	26.0
14	16.0	7.5	7.0	4.5	7.0	16.0	21.0	21.0	27.5	30.5	23.5	25.5
15	16.0	7.5	8.0	4.5	8.0	15.0	21.5	21.5	27.0	31.0	23.0	25.0
16	13.0	7.5	8.0	5.5	9.5	15.5	19.5	23.0	28.0	30.0	24.0	24.0
17	13.0	9.0	8.0	6.0	9.5	14.5	21.0	23.5	28.0	30.0	25.0	21.0
18	13.5	9.5	---	5.5	13.0	13.5	21.0	25.0	28.5	29.5	26.5	17.5
19	13.5	9.5	8.0	4.5	13.0	12.0	21.5	23.0	29.0	27.5	27.5	16.0
20	14.5	9.5	7.5	5.0	11.5	11.0	21.0	23.5	26.5	25.5	27.5	---
21	16.0	11.5	9.0	6.5	7.0	13.0	22.5	24.0	25.5	26.5	27.5	---
22	18.5	9.0	9.0	7.0	5.5	13.0	23.0	23.0	26.5	27.0	27.5	---
23	16.0	7.0	7.0	5.5	7.5	12.5	21.0	25.0	26.5	25.5	27.5	19.0
24	18.0	5.5	6.0	7.0	7.5	9.0	23.0	24.0	28.0	26.0	---	17.0
25	18.5	7.0	5.0	8.0	11.0	11.5	22.0	25.0	27.5	27.0	---	19.0
26	16.5	---	---	7.5	11.0	13.0	21.0	24.0	28.0	27.0	27.0	20.0
27	16.5	8.0	6.0	7.5	10.5	14.0	24.0	24.0	28.0	27.0	27.5	23.0
28	15.5	9.0	6.0	7.5	10.0	16.0	21.0	24.0	27.0	27.0	27.0	24.0
29	14.5	10.0	6.5	8.0	---	15.5	19.5	---	28.0	26.5	26.0	24.5
30	14.0	10.0	---	9.0	---	16.5	20.0	22.0	28.0	26.0	26.0	24.0
31	13.5	---	6.5	7.0	---	17.5	---	25.0	---	25.0	26.0	---
MONTH	17.0	9.5	9.0	5.5	7.5	12.5	19.5	23.0	27.0	28.5	26.0	24.0

RED RIVER BASIN

07311200 BLUE BEAVER CREEK NEAR CACHE, OKLA.
(Hydrologic bench-mark station)

PERIOD OF RECORD.--Water year 1965-67 (partial-record station), October 1967 to current year.

REMARKS.--No flow Apr. 23-28, 30, May 1-30, June 2-Aug. 13, Aug. 27-Sept. 3.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.										
07...	.08	143	.19	.01	75	0	.9	228	7.8	70
30...	.02	136	.18	.01	76	0	.9	234	7.7	60
NOV.										
19...	.00	142	.19	.01	77	0	.8	236	7.8	60
DEC.										
09...	.02	141	.19	.01	74	0	.9	229	7.9	40
29...	.01	130	.18	.01	70	9	.9	222	7.7	40
JAN.										
20...	.00	126	.17	.01	70	8	.8	214	7.5	30
FEB.										
11...	.00	127	.17	.01	64	2	.9	218	7.6	20
MAR.										
04...	.00	128	.17	.01	66	2	.9	216	7.9	40
APR.										
07...	--	137	.19	.01	72	0	1.2	248	7.9	--
SEP.										
09...	.03	147	.20	.12	78	0	.8	237	7.5	--
29...	--	--	--	--	--	--	--	146	--	--

07311500 DEEP RED RUN NEAR RANDLETT, OKLA.

LOCATION.--Lat 34°13'15", long 98°27'10", in SW1/4SW1/4 sec.10, T.4 S., R.12 W., Cotton County, at gaging station at bridge on U.S. Highway 277, 2.8 mi (4.5 km) north of Randlett, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--617 sq mi (1,598.0 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01...	3.6	72	132	6	55	100	.00	368
12...	.54	100	158	10	63	140	.30	508
31...	.43	160	222	6	81	230	.10	736
NOV.								
01...	.54	160	168	0	87	240	.20	704
15...	.25	180	200	4	96	270	1.2	806
30...	.79	210	230	4	100	310	1.0	966
DEC.								
06...	.33	140	286	10	19	100	2.2	463
14...	.25	290	214	8	120	410	1.0	1070
31...	.79	320	220	8	140	470	.60	1220
JAN.								
03...	1.2	340	200	10	140	490	.30	1160
18...	.43	390	214	12	190	560	.50	1400
31...	.54	460	188	10	220	680	.30	1600
FEB.								
09...	.18	500	202	10	240	700	.40	1660
18...	.43	490	202	12	250	670	1.2	1570
26...	1.7	440	202	12	230	590	1.2	1440
MAR.								
01...	.93	430	188	12	210	620	.80	1500
14...	.54	510	190	12	220	800	.70	1750
31...	.25	560	184	16	250	800	.40	1860
APR.								
01...	.25	550	192	8	240	820	1.0	1870
30...	.08	640	206	0	290	950	1.0	2250
MAY								
09...	.16	570	176	6	270	870	4.0	1950
13...	.05	650	182	2	310	1000	1.3	2250
JUNE								
03...	3.8	690	282	12	230	1000	.80	2360
10...	.03	190	234	18	20	260	3.0	708
22...	467	18	44	0	18	31	4.9	142
JULY								
02...	.54	66	162	10	32	75	1.1	329
29...	.03	98	164	8	41	110	.80	384
AUG.								
10...	147	150	222	4	62	230	5.1	676
15...	11900	6.1	36	0	7.0	2.6	6.1	73
25...	1.1	34	154	4	21	36	2.0	251
SEP.								
09...	16	38	144	4	24	35	2.3	255
16...	.79	52	184	0	29	56	2.2	316
25...	1780	13	66	0	11	8.0	5.8	101

07311500 DEEP RED RUN NEAR RANDLETT, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water year 1948 (partial-record station), October 1949 to September 1950, February to September 1951, water years 1952, 1954-56, 1958 (partial-record station), November 1959 to September 1960, water years 1961-63 (partial-record station), October 1968 to current year.
Water temperatures: October 1949 to September 1950, February to September 1951, October 1968 to current year.

REMARKS.--No flow Apr. 5-20, May 19-26, 28-30, July 8-22, 24-28, July 30-Aug. 9.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01...	.50	3.58	150	32	2.6	634	8.6
12...	.69	.74	200	40	3.1	868	8.8
31...	1.00	.85	260	68	4.3	1280	8.5
NOV.							
01...	.96	1.03	200	62	4.9	1210	8.2
15...	1.10	.58	240	69	5.1	1450	8.4
30...	1.29	2.02	280	85	5.5	1660	8.5
DEC.							
08...	.63	.41	100	0	6.1	826	8.5
14...	1.46	.72	270	81	7.7	2000	8.4
31...	1.66	2.60	290	96	8.2	2290	8.5
JAN.							
03...	1.58	3.76	280	99	8.8	2120	8.6
18...	1.90	1.62	320	128	9.5	2620	8.6
31...	2.18	2.33	360	190	11	3000	8.5
FEB.							
09...	2.26	.81	350	170	12	3020	8.6
18...	2.14	1.02	340	150	12	2850	8.6
26...	1.96	6.61	310	120	11	2550	8.6
MAR.							
01...	2.04	3.77	340	200	10	2630	8.6
14...	2.30	2.55	350	170	12	3120	8.7
31...	2.53	1.26	380	200	13	3410	8.6
APR.							
01...	2.54	1.26	390	220	12	3330	8.6
30...	3.06	.48	450	280	13	3940	8.0
MAY							
09...	2.65	.95	420	270	12	3400	8.5
13...	3.06	.30	500	350	13	4000	8.4
JUNE							
03...	3.21	24.2	420	170	15	3910	8.6
10...	1.07	.06	210	0	5.7	1250	8.7
22...	.19	179	60	24	1.0	206	8.0
JULY							
02...	.45	.48	150	0	2.3	557	8.6
29...	.54	.03	130	0	3.7	694	8.6
AUG.							
10...	.92	268	240	51	4.2	1210	8.5
15...	.10	2345	32	1	.5	89	7.4
25...	.34	.74	130	0	1.3	409	8.5
SEP.							
09...	.35	11.0	120	0	1.5	392	8.4
16...	.43	.67	150	0	1.8	516	8.3
25...	.14	485	52	0	.8	160	8.0

07311500 DEEP RED RUN NEAR RANDLETT, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	634	1210	1640	2470	2930	2630	3380	3830	3790	557	775	302
2	664	1300	1710	2260	2950	---	3480	3900	3230	543	776	366
3	---	1370	1740	2120	2950	2770	3500	3900	3910	562	1020	400
4	723	1330	1760	2260	2860	2820	3460	3980	1760	584	822	---
5	757	1340	---	2390	2930	2800	3510	4030	1440	591	828	160
6	784	1350	826	2360	2910	2890	3530	4000	1180	615	---	247
7	807	1390	---	2440	---	2870	3600	4100	1210	631	---	283
8	832	1390	---	2360	3000	2940	3620	4080	1260	653	---	356
9	838	1390	1890	2420	3020	2960	3670	3400	1280	662	---	392
10	---	1410	1890	2420	2980	3030	3640	3690	1300	695	1190	406
11	860	1410	1960	2480	2950	2960	3780	3910	614	695	478	430
12	868	1420	1970	2600	2890	2980	3780	3950	2330	697	366	452
13	865	---	1990	2640	2960	3030	3770	4000	3480	742	361	476
14	860	1450	2000	2600	2980	3120	3790	4040	3780	745	366	486
15	831	1450	---	2560	2910	3110	3820	4060	3800	767	83	494
16	---	1440	---	2630	3000	3140	3840	4290	---	787	128	510
17	---	1470	2090	2630	2930	3100	3820	4180	3760	800	221	506
18	908	1440	2050	2560	2850	3120	3840	4280	3860	825	219	470
19	944	1470	2070	2580	3000	3210	3860	4310	3890	850	281	393
20	970	1480	2120	2620	3020	3200	3860	4380	3940	858	310	232
21	1000	1510	2080	2640	---	3200	4000	4360	2950	862	322	311
22	1020	1530	2110	2660	2820	3230	3740	4370	205	742	348	341
23	1170	1550	2100	2800	2810	3230	3760	4390	466	777	371	389
24	1120	1570	2140	2840	2950	3220	3840	4510	569	775	364	263
25	1050	1550	2160	2850	2860	3230	3880	4540	480	792	394	158
26	1190	1580	2200	2980	2550	3250	4020	---	484	797	406	170
27	1210	1600	2180	2980	2720	3260	3930	4170	505	800	414	240
28	1210	1610	2210	2990	2750	3330	3970	4230	518	807	439	351
29	1240	1610	2260	3000	---	3270	4000	4190	531	694	438	428
30	---	1660	2260	2990	---	3390	3940	4130	550	758	452	501
31	1280	---	2290	3030	---	3410	---	4160	---	777	423	---
MONTH	968	1450	1990	2630	2900	3090	3750	4110	1970	724	466	363

07311500 DEEP RED RUN NEAR RANDLETT, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	9.5	15.0	9.5	6.5	12.5	16.5	22.0	27.0	27.5	26.0	26.0
2	18.0	10.0	13.5	6.5	3.5	---	17.5	22.5	26.5	27.0	26.5	26.0
3	---	9.0	14.5	7.5	10.5	9.5	16.5	24.0	29.0	27.0	31.5	27.0
4	22.5	9.0	12.5	8.0	7.0	12.5	14.0	22.0	27.5	30.0	27.0	---
5	23.0	9.5	---	3.5	7.0	16.0	15.5	26.5	26.0	25.5	26.0	23.0
6	25.5	11.0	14.0	4.0	3.0	13.0	15.5	20.0	28.5	30.0	---	27.0
7	26.0	16.5	---	4.5	---	13.0	17.5	24.5	27.0	31.5	---	27.5
8	14.0	16.0	10.0	4.0	4.0	14.5	18.5	22.0	29.0	30.0	---	28.0
9	16.0	14.0	17.0	5.0	5.0	15.0	19.0	22.0	26.0	30.5	---	27.5
10	---	11.0	17.0	8.0	7.5	15.0	20.5	26.0	26.0	30.0	26.5	27.0
11	15.0	12.0	7.0	7.5	10.0	13.0	22.0	24.0	26.0	30.5	28.0	30.0
12	16.0	9.0	9.0	5.0	10.0	17.5	21.0	16.0	27.5	27.0	26.5	29.0
13	17.0	---	10.0	8.0	8.0	13.0	16.5	23.5	28.0	26.0	25.0	28.0
14	17.0	7.0	8.0	7.5	10.0	12.0	19.5	25.0	28.0	26.5	26.5	27.5
15	13.5	6.5	9.5	8.0	11.0	18.0	20.0	22.0	29.0	31.5	24.0	28.0
16	12.0	8.0	17.0	8.0	13.5	19.5	18.0	23.0	---	31.0	24.0	26.0
17	---	10.0	11.0	7.0	14.0	15.5	20.0	25.0	29.0	28.0	25.0	27.0
18	16.5	10.0	10.5	5.5	15.5	13.5	18.5	27.0	29.0	31.5	26.5	25.5
19	17.0	11.0	8.0	5.0	14.0	12.5	19.0	23.5	26.5	27.5	27.0	24.5
20	13.5	10.0	7.0	9.0	12.0	13.0	23.0	21.0	28.0	25.5	27.0	24.5
21	17.5	13.0	10.5	10.0	---	15.5	22.0	23.0	25.5	28.5	30.0	26.5
22	17.5	10.0	11.5	10.5	4.0	12.0	24.5	23.5	25.5	30.0	29.0	26.0
23	18.0	5.0	8.0	11.0	7.0	11.0	19.0	26.0	28.0	30.0	28.0	26.0
24	20.0	5.5	10.5	9.5	11.0	9.5	19.5	19.5	27.5	24.5	26.0	26.5
25	18.5	8.0	5.0	12.0	14.5	8.0	22.0	27.0	27.0	32.0	27.5	18.0
26	20.0	9.0	6.5	9.5	14.0	9.5	24.0	---	---	31.0	28.5	26.0
27	---	9.0	6.0	9.0	13.0	19.5	27.0	25.0	29.5	31.5	29.5	24.5
28	---	11.0	8.5	8.0	12.0	16.5	19.0	24.0	29.0	29.5	30.0	24.0
29	---	14.0	9.0	11.0	---	18.0	17.5	22.5	29.0	27.5	27.0	25.0
30	---	16.0	9.0	12.0	---	19.0	16.0	24.0	30.5	28.5	26.5	24.5
31	---	---	8.0	7.0	---	20.5	---	26.0	---	27.0	27.0	---
MONTH	---	10.5	10.5	7.5	9.5	14.5	19.5	23.5	27.5	29.0	27.0	26.0

07315900 WALNUT BAYOU NEAR BURNEYVILLE, OKLA.

LOCATION.--Lat 33°56'30", long 97°18'20", in NW1/4NE1/4 sec.21, T.7 S., R.1 W., Love County, at gaging station at bridge on State Highway 32, 0.8 mi (1.3 km) downstream from Simon Creek, 2.5 mi (4.0 km) northwest of Burneyville, and at mile 6.5 (10.5 km).

DRAINAGE AREA.--314 sq mi (813.3 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN-TANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT.								
02...	18	160	112	0	62	330	--	.40
10...	59	710	82	0	110	1500	--	.60
27...	2090	12	40	0	11	17	--	1.6
NOV.								
01...	13	63	120	0	51	110	--	.30
14...	6.3	140	132	0	79	270	--	.30
30...	4.0	230	108	0	95	470	--	.40
DEC.								
03...	4.5	230	104	0	100	480	--	.40
23...	5.7	290	108	0	95	600	--	.20
29...	4.5	350	96	0	100	720	--	.60
JAN.								
04...	19	100	130	0	56	170	.08	.40
05...	50	590	88	0	130	1300	.14	.60
27...	4.7	170	120	0	75	310	.07	.30
FEB.								
10...	4.7	250	104	0	86	510	.18	.80
21...	18	130	146	6	74	270	1.5	6.7
23...	39	580	100	0	100	1300	.09	.40
MAR.								
04...	12	240	112	4	90	500	.05	.20
15...	7.6	390	116	0	110	800	.23	1.0
21...	3.8	330	106	0	110	680	.29	1.3
APR.								
08...	3.1	390	106	0	120	770	.16	.70
19...	6.6	240	126	0	95	450	.07	.30
26...	4.5	700	88	0	140	1600	.02	.10
MAY								
22...	.69	520	86	0	200	1100	.29	1.3
28...	2.6	150	134	0	110	260	.07	.30
30...	10	930	62	0	190	2000	.07	.30
JUNE								
01...	2.6	790	88	0	160	1800	.07	.30
19...	2.9	120	162	4	54	240	.50	2.2
24...	.62	100	100	0	31	200	.52	2.3
JULY								
05...	7.6	82	104	0	26	170	.05	.20
12...	.20	99	128	2	63	180	.16	.70
30...	8.3	380	110	0	69	620	.59	2.6
AUG.								
06...	.06	190	162	6	74	360	.32	1.4
13...	.02	160	174	6	100	280	.56	2.5
SEP.								
20...	.10	91	168	8	160	130	.41	1.8
30...	.02	130	180	10	170	170	.41	1.8

07315900 WALNUT BAYOU NEAR BURNEYVILLE, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water year 1960 (partial-record station), October 1960 to June 1963, October 1968 to current year.
Water temperatures: October 1968 to current year.

REMARKS.--No flow July 17-20, Aug. 11, 21-24, Aug. 29-Sept. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
02...	778	1.05	20.9	280	180	4.2	1410	8.2
10...	2980	4.05	475	820	753	11	5070	8.0
27...	103	.14	804	48	9	.8	159	7.7
NOV.								
01...	342	.47	12.0	160	62	2.2	680	8.3
10...	661	.90	11.2	270	162	3.7	1380	8.3
30...	1090	1.48	11.8	370	281	5.2	2080	8.2
DEC.								
03...	1150	1.56	14.0	370	285	5.2	1930	8.1
23...	1400	1.90	21.5	400	311	6.3	2280	8.2
29...	1640	2.23	19.9	460	381	7.1	2750	8.1
JAN.								
04...	492	.67	25.2	190	83	3.2	867	8.2
05...	2730	3.71	368	790	720	9.1	4080	8.1
27...	718	.98	9.11	260	160	4.6	1320	8.3
FEB.								
10...	1150	1.56	14.6	350	270	5.8	1930	8.3
21...	712	.97	34.6	300	170	3.3	1230	8.6
23...	2540	3.45	267	760	680	9.2	4260	8.2
MAR.								
04...	1170	1.59	37.9	360	260	5.5	1940	8.5
15...	1720	2.34	35.3	480	390	7.7	2870	8.3
21...	1450	1.97	14.9	450	360	6.8	2440	8.3
APR.								
04...	1660	2.26	13.9	500	410	7.6	2810	8.3
19...	982	1.34	17.5	340	240	5.7	1740	8.2
26...	3000	4.08	36.4	880	810	10	5460	8.1
MAY								
22...	2290	3.11	4.27	700	630	8.6	3890	8.1
28...	698	.95	4.90	260	150	4.0	1250	8.3
30...	3740	5.09	101	1100	1030	12	6380	8.0
JUNE								
01...	3240	4.41	22.7	1000	930	11	5760	8.0
19...	626	.85	4.90	260	120	3.2	1110	8.5
24...	431	.59	.72	170	88	3.3	751	8.0
JULY								
05...	445	.61	9.13	180	95	2.7	767	8.3
12...	521	.71	.28	230	120	2.8	909	8.4
30...	1410	1.92	31.6	420	330	6.4	2260	8.2
AUG.								
06...	850	1.16	.14	300	160	4.8	1530	8.5
13...	792	1.08	.04	310	160	4.0	1360	8.5
SEP.								
20...	602	.82	.16	310	170	2.2	1000	8.7
30...	649	.88	.04	300	140	3.3	1120	8.7

07315800 WALNUT BAYOU NEAR BURNEYVILLE, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	680	---	2030	1400	2800	2500	4110	5720	877	1450	1330
2	1410	764	1870	2380	1570	2820	2680	4130	1080	913	1480	1360
3	1610	846	1930	1790	1920	2570	2660	4550	970	867	1500	1370
4	1820	904	2050	867	1500	1940	2820	4820	965	947	1510	1380
5	1950	952	2120	4440	1550	2060	2820	4840	1060	765	1520	---
6	2120	1300	2140	4000	1480	2310	2050	1290	1100	772	1530	---
7	2220	1060	2300	3030	1720	2500	2770	1570	1140	772	1470	---
8	2150	1130	2290	2510	2120	2820	2610	1500	1190	814	---	---
9	2180	1160	2350	1820	2110	2710	2640	2300	1260	873	1450	---
10	5070	1230	2270	1560	1930	2650	2710	2390	1260	886	1470	---
11	3160	1260	2120	1430	2080	2530	2600	1830	1230	922	1490	---
12	2620	1310	2120	1380	2020	2620	2360	1920	1220	970	1530	---
13	2190	1360	2200	1350	1990	2540	2350	2300	1210	989	1370	---
14	1920	1380	2240	1220	2020	2860	2930	2780	1180	1050	390	---
15	1760	1240	2300	1180	2270	2870	2730	3550	1200	1100	503	---
16	1630	1300	2360	1240	2120	2860	2820	3720	1330	1100	1030	---
17	1440	1440	2150	1270	2120	2590	2390	4060	1110	1130	1080	---
18	1350	1480	2120	1240	2170	2510	2760	4140	1050	---	1100	---
19	1410	1530	2190	1220	2000	2580	1740	3870	1080	---	1130	---
20	1400	1560	2200	1280	2300	2560	2320	3920	1110	---	1150	997
21	1390	1680	2350	1280	1230	2440	2880	3920	1150	---	1150	1060
22	1390	1620	2450	1400	1920	2430	2980	3890	1160	---	1180	1150
23	895	1720	2280	1430	4260	2310	3600	3900	886	---	1200	1170
24	1380	1770	2370	1310	3050	2370	4170	3990	751	---	1210	1140
25	953	1830	2370	1400	2650	2430	4590	3890	870	---	1090	1140
26	687	1970	2570	1450	2670	2580	5060	3770	939	994	1110	1110
27	159	2370	2740	1430	2670	2450	4720	1970	967	1010	1330	1140
28	237	2040	2720	1510	2670	2390	4720	1250	994	997	1360	1170
29	432	2330	2750	1600	---	2040	4500	5790	983	1000	1330	1130
30	532	2080	2400	1570	---	2370	4520	6380	992	2260	1340	1140
31	601	---	2550	1490	---	2730	---	5780	---	1510	1340	---
MONTH	1590	1410	2300	1710	2110	2520	3130	3480	1240	---	1260	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	---	7.0	4.0	9.0	13.5	15.5	22.5	26.5	23.0	14.0
2	---	11.0	14.0	8.5	5.5	7.0	10.0	18.0	24.0	25.0	21.0	23.5
3	---	10.0	17.0	12.0	4.0	5.0	13.5	18.0	24.0	27.0	25.5	19.5
4	---	9.5	12.0	4.0	---	4.0	14.0	17.0	24.5	28.0	23.0	25.0
5	---	10.0	15.0	3.0	---	7.0	10.5	20.0	24.5	28.0	24.0	---
6	---	10.5	11.5	1.0	---	8.5	9.5	19.0	25.0	27.5	24.0	---
7	---	12.0	10.0	2.0	---	7.0	9.0	20.5	25.5	27.0	25.0	---
8	---	17.0	13.0	2.5	---	7.5	12.0	20.0	24.5	28.0	---	---
9	---	13.0	14.5	---	---	9.5	13.0	19.5	24.0	28.0	25.0	---
10	---	16.0	17.5	---	---	8.0	17.0	19.5	25.0	27.0	26.0	---
11	---	15.0	8.0	---	---	10.5	16.0	19.5	26.0	26.0	25.0	---
12	---	11.0	5.0	---	---	13.5	17.0	18.0	25.5	27.0	26.0	---
13	---	12.0	7.0	---	---	14.5	17.0	15.0	26.5	27.0	24.5	---
14	---	10.0	---	8.0	---	16.5	13.5	16.0	26.0	25.5	19.0	---
15	---	8.0	8.0	6.0	---	11.5	16.0	17.0	23.5	36.5	19.5	---
16	---	7.5	7.5	5.0	---	14.0	9.5	18.5	26.0	27.0	19.5	---
17	---	9.0	7.0	5.5	---	11.5	17.5	19.5	26.0	27.5	25.5	---
18	---	---	9.5	5.5	---	13.5	17.0	22.0	26.0	---	26.0	---
19	---	12.0	10.0	3.0	---	7.5	18.5	18.0	25.0	---	26.0	---
20	---	10.5	8.0	3.0	---	8.5	17.5	16.0	25.0	---	25.5	15.0
21	---	12.0	8.5	7.0	8.0	10.0	16.0	16.0	25.5	---	26.5	15.5
22	---	13.0	11.5	8.5	7.0	13.5	19.0	22.0	25.0	---	27.5	20.0
23	---	---	7.0	8.5	8.5	12.5	17.5	28.0	27.0	---	26.0	18.5
24	---	5.5	5.0	7.5	7.5	9.0	15.5	19.0	27.5	---	26.5	19.5
25	---	6.0	5.5	6.5	11.5	9.0	18.0	16.5	26.5	---	25.0	21.5
26	---	12.5	8.0	7.0	12.0	12.0	19.0	19.0	26.0	26.5	25.0	25.5
27	---	14.5	4.5	6.0	8.0	12.0	21.5	19.5	26.0	25.0	25.0	23.0
28	---	12.5	6.5	6.5	8.5	18.5	17.0	28.5	25.0	25.0	24.5	24.0
29	---	15.0	7.5	8.5	---	12.5	16.5	23.0	25.0	25.5	24.5	24.0
30	---	17.5	9.0	9.5	---	10.0	17.0	19.5	25.5	22.0	18.5	23.5
31	---	---	6.5	6.0	---	12.0	---	22.0	---	22.0	19.0	---
MONTH	---	11.5	9.5	6.0	---	10.5	15.5	19.5	25.5	---	24.0	---

07316500 WASHITA RIVER NEAR CHEYENNE, OKLA.

LOCATION.--Lat 35°37'35", long 99°40'05", in SE1/4 sec. 5, T.13 N., R.23 W., Roger Mills County, at gaging station at bridge on U.S. Highway 283, 0.5 mi (0.8 km) downstream from Sergeant Major Creek, 1.0 mi (1.6 km) north of Cheyenne, 5.2 mi (8.4 km) upstream from Dead Indian Creek, and at mile 543.9 (875.1 km).

DRAINAGE AREA.--794 sq mi (2,056.5 km^2).

PERIOD OF RECORD.--Chemical analyses: February 1950 to September 1953, October 1959 to August 1961, March 1969 to current year.

REMARKS.--No flow Oct. 1-Jan. 12, Apr. 30-June 7, June 25-Aug. 8, Aug. 10-Sept. 30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	PHOSPHATE (PO4) (MG/L)
JAN. 28...	3.1	170	398	2	480	80	.30	3.0
MAR. 23...	1.5	180	324	0	740	83	.00	1.5
APR. 09...	.67	190	252	0	830	89	.00	4.6
JUNE 16...	11	120	334	0	270	63	.70	.57

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)
JAN. 28...	1160	1.58	9.71	580	250	3.1	1600	8.4	5
MAR. 23...	1540	2.09	6.24	770	500	2.8	1950	8.3	--
APR. 09...	1560	2.12	2.82	760	550	3.0	2020	8.1	--
JUNE 16...	806	1.10	23.9	390	116	2.6	1170	8.3	--

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
JAN. 28...	1650	8.5	9.0	13.0	125
MAR. 23...	1800	--	9.5	9.2	88
APR. 09...	2000	8.7	13.5	10.8	114
JUNE 16...	800	8.3	27.0	7.1	90

07324150 WASHITA RIVER NEAR MOOREWOOD, OKLA.

LOCATION.--Lat 35°39'50", long 99°20'28", Custer County, on county bridge, 3.2 mi (5.1 km) northeast of Hammon and 5.4 mi (8.9 km) southeast of Moorewood.

DRAINAGE AREA.--1,197 sq mi (3,1000 km²).

PERIOD OF RECORD.--Chemical analyses: November 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
NOV.							
05...	76	358	0	1100	46	.00	1930
24...	83	448	0	1100	48	.00	2070
DEC.							
14...	71	374	0	1000	42	.10	1840
JAN.							
05...	110	516	0	1500	64	5.2	2670
26...	69	242	0	980	41	1.8	1620
FEB.							
17...	69	332	0	1000	40	.00	1890
MAR.							
16...	71	302	0	1000	42	.30	1760
APR.							
19...	71	252	0	1000	42	13	1790
JUNE							
15...	54	204	0	230	26	.30	565
JULY							
06...	31	190	0	400	14	.20	808
AUG.							
10...	12	136	0	16	7.0	.60	157

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
NOV.						
05...	2.62	1300	1010	.9	2210	8.0
24...	2.82	1400	1030	1.0	2390	8.1
DEC.						
14...	2.50	1200	893	.9	2120	8.2
JAN.						
05...	3.63	1800	1380	1.1	2940	8.0
26...	2.20	1100	901	.9	1980	8.3
FEB.						
17...	2.57	1220	948	.9	2120	8.0
MAR.						
16...	2.39	1200	950	.9	2040	8.0
APR.						
19...	2.43	1200	990	.9	2060	7.7
JUNE						
15...	.77	330	160	1.3	832	7.8
JULY						
06...	1.10	540	380	.6	1070	7.6
AUG.						
10...	.21	110	0	.5	275	7.7

07324190 QUARTERMASTER CREEK NEAR HAMMON, OKLA.

LOCATION.--Lat 35°40'57", long 99°19'12", Custer County, on county road bridge, 4.5 mi (7.2 km) southeast of Moorewood, 5.1 mi (8.2 km) northeast of Hammon, and at mile 0.3 (0.5 km).

DRAINAGE AREA.--175 sq mi (453 km^2).

PERIOD OF RECORD.--Chemical analyses: November 1969 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SULIDS (RESIDUE AT 180 C) (MG/L)
FEB. 17...	100	488	0	2800	74	.30	4400
MAR. 16...	58	308	0	1700	40	.60	2780
APR. 19...	150	438	0	3300	96	.50	5370
JUNE 15...	16	90	0	520	9.0	.70	921
JULY 06...	5.8	128	0	330	5.0	2.4	611
AUG. 10...	11	90	0	260	13	3.0	497

DATE	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
FEB. 17...	5.98	3200	2800	.8	4230	8.0
MAR. 16...	3.78	2000	1700	.6	2880	8.0
APR. 19...	7.30	3600	3200	1.1	4920	7.6
JUNE 15...	1.25	620	540	.3	1140	8.0
JULY 06...	.83	430	330	.1	812	7.1
AUG. 10...	.68	340	270	.3	702	7.1

07324200 WASHITA RIVER NEAR HAMMON, OKLA.

LOCATION.--Lat 35°39'23", long 99°18'21", on west line of sec. 26, T.14 N., R.20 W., Custer County, at gaging station on county road bridge, 2.2 mi (3.5 km) downstream from Quartermaster Creek, 4.7 mi (7.6 km) northeast of Hammon, and at mile 494.5 (795.6 km).

DRAINAGE AREA.--1,387 sq mi (3,592.3 km^2).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
01...	.02	21	106	0	420	12	.10	720
NOV.								
05...	.20	28	310	0	660	18	.40	1250
15...	.20	29	110	0	520	14	2.0	956
24...	.20	33	394	0	720	21	.90	1450
30...	.38	40	272	30	680	22	47	1370
DEC.								
05...	.56	34	76	0	680	20	.00	1170
14...	.20	35	362	0	720	23	.90	1400
16...	.18	33	106	0	620	18	.50	1060
26...	.16	42	86	0	790	24	.30	1360
JAN.								
04...	.12	110	252	0	1400	63	4.1	2370
09...	.02	20	66	0	450	10	.10	692
14...	.14	38	94	0	640	19	.10	1020
20...	.16	36	86	0	670	20	.10	1070
26...	.32	33	348	0	710	20	.40	1320
FEB.								
08...	.32	38	80	0	720	21	.30	1240
17...	.32	37	352	0	850	21	.20	1500
24...	.56	28	106	0	460	16	.30	860
28...	5.0	47	96	0	1100	32	.20	1820
MAR.								
01...	1.5	50	90	0	1400	38	.20	2120
16...	.22	49	288	0	1200	31	.23	1980
17...	.16	48	80	0	1200	29	.90	1820
26...	.21	43	76	0	1000	24	.30	1570
APR.								
01...	.21	49	86	0	1100	27	1.5	1690
17...	.32	53	154	2	1100	27	1.9	1740
19...	.16	44	208	0	690	24	5.1	1520
29...	10	35	112	0	780	20	1.3	1260
MAY								
02...	.10	44	96	0	980	24	.20	1550
JUNE								
11...	1430	6.8	90	4	75	2.4	.10	200
15...	46	50	190	0	260	26	.50	604
29...	1.4	33	114	0	380	18	.20	700
JULY								
06...	2.8	11	118	0	330	6.5	.50	608
07...	.92	13	96	2	350	6.6	.10	606
16...	.16	24	198	12	380	14	4.4	824
29...	4.8	4.0	80	0	66	1.0	4.9	180
AUG.								
09...	144	8.1	124	2	78	2.5	9.5	270
10...	23	7.2	110	0	130	6.0	4.3	310
23...	.06	16	186	12	210	7.5	3.6	508

07324200 WASHITA RIVER NEAR HAMMON, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1969 to current year.
Water temperatures: October 1969 to current year.

REMARKS.--Continuous monitor records for water temperature and specific conductance are collected for this station. No flow Oct. 8-16, Oct. 20-Nov. 1, May 5-June 7, Aug. 25, Aug. 27-Sept. 16, Sept. 20-23, 27-30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01...	.98	.04	500	413	.4	1020	8.1
NOV.							
05...	1.67	.66	900	646	.4	1490	8.1
15...	1.30	.52	610	520	.5	1180	8.2
24...	1.94	.77	1000	677	.5	1730	8.0
30...	1.86	1.40	960	687	.6	1650	8.7
DEC.							
05...	1.59	1.77	710	648	.6	1560	8.0
14...	1.90	.76	1000	703	.5	1700	8.0
16...	1.48	.52	680	593	.6	1370	8.2
26...	1.88	.60	840	768	.6	1790	8.1
JAN.							
04...	3.22	.76	1600	1390	1.2	2940	8.0
09...	.94	.04	500	450	.4	948	8.0
14...	1.39	.38	690	610	.6	1380	8.1
20...	1.46	.46	720	650	.6	1380	8.1
26...	1.80	1.14	970	685	.5	1650	8.0
FEB.							
08...	1.69	1.07	800	730	.6	1450	8.0
17...	2.04	1.30	1100	811	.5	1790	8.1
24...	1.17	1.30	550	460	.5	1080	8.2
28...	2.48	28.5	1200	1100	.6	2000	8.1
MAR.							
01...	2.88	8.59	1400	1300	.6	2280	8.2
16...	2.69	1.18	1400	1200	.6	2220	7.7
17...	2.48	.79	1200	1100	.6	2100	8.1
26...	2.14	.89	1000	940	.6	1770	8.1
APR.							
01...	2.30	.96	1100	1000	.6	1940	8.2
17...	2.37	1.50	1200	1100	.7	2030	8.4
19...	2.07	.86	1100	930	.6	1820	7.9
28...	1.71	34.0	840	750	.5	1480	8.2
MAY							
02...	2.11	.42	1000	920	.6	1760	7.6
JUNE							
11...	.27	1960	140	59	.3	319	8.5
15...	.82	75.0	360	200	1.1	868	7.9
29...	.95	2.65	420	330	.7	937	8.3
JULY							
06...	.83	4.60	420	320	.2	815	7.7
07...	.82	1.50	420	340	.3	803	8.4
16...	1.12	.36	520	340	.6	1010	8.6
29...	.24	2.33	130	64	.2	280	8.2
AUG.							
09...	.38	107	180	75	.3	399	8.4
10...	.42	19.0	210	120	.2	470	7.5
23...	.77	.09	380	210	.4	754	8.7

07324200 WASHITA RIVER NEAR HAMMON, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	---	1670	1620	1570	2300	1920	1680	---	630	725	---
2	1060	1360	1610	1550	1810	2270	2140	1820	---	497	818	---
3	1080	1410	1510	1360	1850	2350	1960	1680	---	514	818	---
4	1070	1420	1530	---	1630	2210	2300	1360	---	737	852	---
5	1120	1510	1560	1210	1650	2100	1960	---	---	813	834	---
6	1100	1430	1560	1300	1630	2150	2200	---	---	811	827	---
7	1300	1370	1600	1330	1740	2170	2180	---	---	900	741	---
8	---	1430	1590	1300	1550	2140	1940	---	1170	869	812	---
9	---	1560	1560	848	1620	2100	1860	---	488	900	246	---
10	---	1420	1560	1130	1660	2050	2180	---	704	910	414	---
11	---	1520	1610	1700	1740	1850	2080	---	326	922	584	---
12	---	1400	1750	1810	1480	2140	2050	---	507	926	530	---
13	---	1560	1740	2100	1600	2200	1970	---	696	925	566	---
14	---	1380	1640	1740	1570	2210	2010	---	877	938	595	---
15	---	1100	1430	1980	1700	2140	1990	---	972	908	569	---
16	---	1430	1410	1630	1640	2140	2020	---	869	1010	555	---
17	1250	1470	1450	1490	1730	2100	2030	---	982	940	590	1100
18	1380	1420	1480	1500	1670	2110	1880	---	1040	859	498	1030
19	1440	1550	1550	1330	1710	2130	1840	---	1070	822	508	1050
20	---	1450	1510	1410	1640	2120	1850	---	1040	844	565	---
21	---	1530	1620	1480	1500	2060	1780	---	726	907	616	---
22	---	1420	1700	1430	1340	2010	1760	---	728	938	588	---
23	---	1530	1630	1440	1310	2120	1710	---	967	960	716	---
24	---	1750	1730	1500	1180	2120	1750	---	1210	528	722	963
25	---	1700	1640	1660	1160	1900	1740	---	1100	559	---	965
26	---	1640	1790	1680	1730	1810	1690	---	1100	501	831	1010
27	---	1640	1720	1680	2040	1880	1700	---	1100	561	---	---
28	---	1600	1710	1560	2120	1910	1620	---	1050	549	---	---
29	---	1610	1620	1740	---	1940	1610	---	1010	515	---	---
30	---	1650	1710	1660	---	1960	1830	---	908	601	---	---
31	---	---	1660	1750	---	1990	---	---	---	824	---	---
MONTH	---	1490	1610	1520	1640	2090	1930	---	---	772	640	---

TEMPERATURE (°C) OF WATER, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CONTINUOUS HOURLY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	---	10.5	7.0	---	3.5	20.0	19.0	---	---	---	---
2	20.5	7.5	9.0	6.0	---	---	13.5	19.5	---	---	---	---
3	19.0	---	10.0	4.0	---	---	16.0	19.0	---	---	---	---
4	19.0	---	7.5	---	---	---	---	19.0	---	---	---	---
5	21.0	---	8.0	---	---	---	---	---	---	---	---	---
6	21.5	10.5	---	---	---	---	---	---	---	---	---	---
7	19.5	---	8.5	---	---	---	14.0	---	---	---	---	---
8	---	---	6.5	---	---	---	15.0	---	---	---	---	---
9	---	10.5	8.0	---	---	---	20.0	---	---	---	---	---
10	---	11.0	10.0	---	---	---	25.0	---	---	---	---	---
11	---	9.5	---	---	5.5	9.5	21.0	---	---	---	---	---
12	---	8.0	---	---	5.0	12.0	20.0	---	---	---	---	---
13	---	6.0	---	13.0	3.5	12.0	21.0	---	---	---	---	---
14	---	5.0	---	---	3.5	10.0	---	---	---	---	---	---
15	---	6.0	5.5	---	3.5	9.5	---	---	---	---	---	---
16	---	---	6.0	---	5.0	8.0	---	---	---	---	---	---
17	11.0	---	6.0	---	4.5	8.5	---	---	---	---	---	23.5
18	11.5	---	8.0	---	7.0	---	---	---	---	---	---	20.5
19	13.5	---	6.5	---	7.5	---	---	---	---	---	---	23.5
20	---	---	6.5	---	6.5	7.0	---	---	---	---	---	---
21	---	---	7.0	---	---	9.0	---	---	---	---	---	---
22	---	---	9.0	---	---	---	21.5	---	---	---	---	---
23	---	---	---	---	---	13.0	15.0	---	---	---	---	---
24	---	---	---	---	---	---	17.0	---	---	---	---	26.0
25	---	9.0	---	---	2.5	13.0	20.0	---	---	---	---	31.0
26	---	9.5	---	---	3.5	13.0	22.5	---	---	---	---	---
27	---	7.5	---	---	3.5	16.0	20.0	---	---	---	---	---
28	---	9.0	---	---	2.5	15.0	16.5	---	---	---	---	---
29	---	10.5	---	6.0	---	17.0	15.0	---	---	---	---	---
30	---	13.0	---	3.0	---	17.0	17.0	---	---	---	---	---
31	---	---	---	---	---	14.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07324200 WASHITA RIVER NEAR HAMMON, OKLA.--Continued

DISSOLVED SULFATE (SO_4), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	430	---	840	810	780	1300	1000	850	---	180	210	---
2	450	640	800	760	940	1200	1200	940	---	140	240	---
3	460	670	740	640	960	1300	1000	850	---	140	280	---
4	460	680	750	---	820	1200	1300	650	---	220	250	---
5	490	740	770	540	830	1100	1100	---	---	240	250	---
6	480	680	770	600	820	1200	1200	---	---	240	250	---
7	600	640	800	620	690	1200	1200	---	---	330	230	---
8	---	660	790	600	760	1200	1000	---	520	260	240	---
9	---	770	770	120	940	1100	970	---	120	330	57	---
10	---	660	770	490	840	1100	1200	---	210	350	110	---
11	---	740	800	860	890	960	1100	---	83	370	170	---
12	---	690	900	940	720	1200	1100	---	140	370	150	---
13	---	770	890	1100	800	1200	1000	---	200	370	160	---
14	---	650	820	890	780	1200	1100	---	280	380	170	---
15	---	880	680	1100	860	1200	1100	---	400	340	170	---
16	---	680	670	820	960	1200	1100	---	300	420	160	---
17	560	710	700	720	880	1100	1100	---	410	380	170	480
18	650	680	720	730	840	1100	980	---	440	260	140	430
19	690	760	760	620	870	1200	960	---	460	240	140	450
20	---	700	740	670	820	1100	980	---	440	250	150	---
21	---	750	810	720	730	1100	920	---	210	340	170	---
22	---	680	860	680	620	1100	900	---	210	380	170	---
23	---	750	820	690	600	1100	870	---	400	390	210	---
24	---	880	880	730	520	1100	900	---	540	150	210	400
25	---	860	820	840	510	1000	890	---	480	150	---	400
26	---	820	920	850	880	940	860	---	480	140	250	420
27	---	820	880	850	1100	980	860	---	480	160	---	---
28	---	800	870	770	1100	1000	810	---	450	170	---	---
29	---	800	810	890	---	1000	940	---	420	78	---	---
30	---	830	870	840	---	1000	950	---	390	170	---	---
31	---	---	840	900	---	1100	---	---	---	250	---	---
MONTH	---	730	800	750	830	1100	1000	---	---	260	190	---

DISSOLVED SULFATE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCUALTED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	---	0.86	0.46	0.65	5.5	0.62	0.27	---	9.3	0.09	---
2	0.01	0.01	0.82	0.53	1.1	1.8	0.62	0.30	---	2.6	0.05	---
3	0.01	0.01	0.87	1.1	1.4	1.6	0.50	0.18	---	6.2	0.04	---
4	0.01	0.01	0.89	---	0.88	1.2	0.61	0.07	---	6.4	0.04	---
5	0.01	0.04	1.2	0.08	0.67	1.9	0.51	---	---	3.0	0.04	---
6	0.01	0.07	0.79	0.08	0.44	1.8	0.61	---	---	1.8	0.02	---
7	0.01	0.10	1.2	0.10	0.12	1.2	0.54	---	---	1.6	0.02	---
8	---	0.11	1.5	0.12	0.06	1.0	0.44	---	0.01	0.77	0.05	---
9	---	0.12	1.3	0.04	0.10	1.3	0.42	---	235	0.55	23	---
10	---	0.11	1.4	0.26	0.15	1.1	0.44	---	168	0.36	9.6	---
11	---	0.14	0.43	0.70	0.24	1.5	0.42	---	250	0.24	5.4	---
12	---	0.15	0.36	0.25	0.38	1.8	0.44	---	279	0.19	3.3	---
13	---	0.58	0.31	0.36	0.75	1.4	0.33	---	131	0.17	2.4	---
14	---	0.77	0.40	0.36	1.1	1.0	0.34	---	86	0.16	2.3	---
15	---	0.18	0.73	0.25	0.95	0.93	0.34	---	54	0.14	2.1	---
16	---	0.33	0.38	0.46	1.6	0.71	0.49	---	22	0.17	2.0	---
17	0.03	0.49	0.33	0.39	0.78	0.48	0.82	---	12	0.20	2.4	0.07
18	0.07	0.47	0.34	0.39	1.4	0.58	0.61	---	5.3	0.11	0.97	0.37
19	0.07	0.66	0.31	0.25	1.7	0.56	0.44	---	2.3	0.08	0.21	0.02
20	---	0.49	0.27	0.30	1.4	0.49	0.44	---	44	0.06	0.05	---
21	---	0.52	0.30	0.34	0.47	0.50	0.34	---	53	0.07	0.03	---
22	---	0.47	0.32	0.33	0.25	0.49	0.31	---	9.8	0.06	0.02	---
23	---	0.28	0.26	0.26	0.24	0.43	0.23	---	10	33	0.03	---
24	---	0.19	0.23	0.29	0.35	0.43	0.24	---	9.0	8.0	0.02	0.04
25	---	0.60	0.33	0.40	1.2	0.48	0.26	---	5.3	2.8	---	0.02
26	---	0.84	0.37	0.68	6.0	0.58	0.23	---	3.7	1.1	0.00	0.02
27	---	0.71	0.37	0.68	2.4	0.69	0.23	---	2.6	0.26	---	---
28	---	0.56	0.42	0.79	9.9	0.70	0.21	---	1.9	0.08	---	---
29	---	0.69	0.37	1.0	---	0.66	0.27	---	1.6	1.2	---	---
30	---	0.85	0.56	1.1	---	0.56	0.30	---	2.0	0.42	---	---
31	---	---	0.43	0.77	---	0.51	---	---	---	0.29	---	---
MONTH	---	0.36	0.59	0.43	1.3	1.1	0.42	---	---	2.6	2.1	---

07324200 WASHITA RIVER NEAR HAMMON, OKLA.--Continued

DISSOLVED CHLORIDE (CL), IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	---	23	23	22	35	27	23	---	5.4	8.4	---
2	12	19	23	22	24	34	31	24	---	4.1	7.4	---
3	13	20	22	19	25	37	28	23	---	4.3	7.4	---
4	13	20	22	---	23	33	35	19	---	8.5	8.0	---
5	14	22	22	16	23	31	26	---	---	7.3	7.6	---
6	13	20	22	18	23	32	33	---	---	7.3	7.5	---
7	18	19	23	18	24	32	32	---	---	9.0	7.1	---
8	---	20	23	18	22	31	27	---	15	8.3	7.3	---
9	---	22	22	3.6	24	31	25	---	3.5	9.0	1.5	---
10	---	20	22	14	23	30	32	---	6.2	9.2	3.2	---
11	---	22	23	23	24	25	30	---	2.3	9.5	5.0	---
12	---	21	24	24	22	31	30	---	4.2	9.6	4.6	---
13	---	22	24	31	23	33	28	---	6.1	9.6	4.8	---
14	---	19	25	24	22	33	29	---	8.5	9.8	5.1	---
15	---	13	20	28	23	31	28	---	11	9.1	5.0	---
16	---	20	20	23	25	31	24	---	6.6	11	4.7	---
17	17	21	21	22	24	31	29	---	11	4.9	5.0	13
18	19	20	22	22	23	31	26	---	12	8.1	4.1	12
19	21	22	22	18	23	31	25	---	13	7.4	4.2	12
20	---	21	22	20	23	31	25	---	12	7.6	4.6	---
21	---	22	23	22	22	30	24	---	6.4	9.2	5.2	---
22	---	20	23	20	19	29	24	---	6.4	9.8	5.0	---
23	---	22	23	21	18	31	23	---	10	10	8.3	---
24	---	24	24	22	15	31	24	---	16	8.8	8.4	10
25	---	23	23	23	15	28	24	---	13	4.5	---	10
26	---	23	24	23	24	24	23	---	13	4.1	7.5	11
27	---	23	23	23	29	26	23	---	13	4.7	---	---
28	---	23	23	22	31	26	23	---	12	5.1	---	---
29	---	23	23	24	---	27	24	---	11	2.2	---	---
30	---	23	23	23	---	28	25	---	10	5.1	---	---
31	---	---	23	24	---	28	---	---	---	7.4	---	---
MONTH	---	21	23	21	23	30	27	---	---	7.4	5.6	---

DISSOLVED CHLORIDE (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	---	0.02	0.01	0.01	0.15	0.01	0.00	---	0.28	0.00	---
2	0.00	0.00	0.02	0.01	0.02	0.05	0.01	0.00	---	0.07	0.00	---
3	0.00	0.00	0.02	0.03	0.03	0.04	0.01	0.00	---	0.18	0.00	---
4	0.00	0.00	0.02	---	0.02	0.03	0.01	0.00	---	0.19	0.00	---
5	0.00	0.00	0.03	0.00	0.01	0.05	0.01	---	---	0.09	0.00	---
6	0.00	0.00	0.02	0.00	0.01	0.05	0.01	---	---	0.05	0.00	---
7	0.00	0.00	0.03	0.00	0.00	0.03	0.01	---	---	0.04	0.00	---
8	---	0.00	0.04	0.00	0.00	0.02	0.01	---	0.00	0.02	0.00	---
9	---	0.00	0.03	0.00	0.00	0.03	0.01	---	6.9	0.01	0.60	---
10	---	0.00	0.04	0.00	0.00	0.03	0.01	---	5.1	0.01	0.27	---
11	---	0.00	0.01	0.01	0.00	0.03	0.01	---	7.0	0.00	0.16	---
12	---	0.00	0.01	0.00	0.01	0.04	0.01	---	8.2	0.00	0.09	---
13	---	0.01	0.00	0.01	0.02	0.03	0.00	---	4.0	0.00	0.07	---
14	---	0.02	0.01	0.01	0.03	0.02	0.01	---	2.6	0.00	0.06	---
15	---	0.00	0.02	0.00	0.02	0.02	0.01	---	1.4	0.00	0.06	---
16	---	0.01	0.01	0.01	0.04	0.02	0.01	---	0.64	0.00	0.05	---
17	0.00	0.01	0.01	0.01	0.02	0.01	0.02	---	0.32	0.00	0.07	0.00
18	0.00	0.01	0.01	0.01	0.03	0.01	0.01	---	0.14	0.00	0.02	0.01
19	0.00	0.02	0.01	0.00	0.04	0.01	0.01	---	0.06	0.00	0.00	0.00
20	---	0.01	0.00	0.01	0.03	0.01	0.01	---	1.2	0.00	0.00	---
21	---	0.01	0.00	0.01	0.01	0.01	0.01	---	1.6	0.00	0.00	---
22	---	0.01	0.00	0.01	0.00	0.01	0.00	---	0.24	0.00	0.00	---
23	---	0.00	0.00	0.00	0.00	0.01	0.00	---	0.27	0.00	0.00	---
24	---	0.00	0.00	0.00	0.01	0.01	0.00	---	0.26	0.23	0.00	0.00
25	---	0.01	0.01	0.01	0.03	0.01	0.00	---	0.14	0.08	---	0.00
26	---	0.02	0.01	0.01	0.15	0.01	0.00	---	0.10	0.03	0.00	0.00
27	---	0.02	0.01	0.01	0.06	0.01	0.00	---	0.07	0.00	---	---
28	---	0.01	0.01	0.02	0.26	0.01	0.00	---	0.05	0.00	---	---
29	---	0.02	0.01	0.02	---	0.01	0.00	---	0.08	0.03	---	---
30	---	0.02	0.01	0.03	---	0.01	0.00	---	0.05	0.01	---	---
31	---	---	0.01	0.02	---	0.01	---	---	---	0.00	---	---
MONTH	---	0.00	0.01	0.00	0.03	0.02	0.00	---	---	0.07	0.05	---

07324200 WASHITA RIVER NEAR HAMMON, OKLA.--Continued

DISSOLVED SOLIDS, IN MILLIGRAMS PER LITRE, MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	782	---	1390	1340	1500	1980	1620	1400	---	428	505	---
2	820	1100	1330	1280	1620	1950	1830	1530	---	350	594	---
3	838	1150	1240	1100	1560	2020	1660	1400	---	342	596	---
4	829	1160	1260	---	1350	1890	1980	1120	---	518	626	---
5	676	1240	1290	960	1370	1790	1680	---	---	589	609	---
6	857	1160	1290	1040	1350	1840	1880	---	---	587	602	---
7	1040	1110	1320	1070	1450	1860	1660	---	---	670	564	---
8	---	1160	1310	1040	1280	1830	1640	---	922	641	588	---
9	---	1290	1290	294	1530	1790	1570	---	291	670	145	---
10	---	1160	1290	865	1380	1740	1860	---	487	680	269	---
11	---	1250	1330	1420	1450	1560	1770	---	206	691	394	---
12	---	1170	1400	1520	1210	1830	1740	---	337	695	354	---
13	---	1290	1450	1790	1320	1880	1670	---	480	694	381	---
14	---	1120	1360	1450	1300	1890	1710	---	649	766	402	---
15	---	857	1160	1680	1420	1830	1690	---	738	676	398	---
16	---	1160	1150	1350	1550	1830	1720	---	660	773	373	---
17	997	1200	1180	1220	1480	1790	1720	---	747	708	399	857
18	1120	1180	1210	1230	1390	1800	1580	---	801	632	329	792
19	1170	1280	1280	1070	1430	1820	1550	---	829	598	338	810
20	---	1190	1240	1150	1360	1810	1560	---	801	609	365	---
21	---	1260	1340	1210	1230	1750	1490	---	508	677	410	---
22	---	1160	1420	1160	1080	1710	1470	---	508	706	397	---
23	---	1260	1350	1170	1050	1810	1430	---	733	726	494	---
24	---	1440	1440	1230	932	1810	1460	---	460	353	504	729
25	---	1420	1360	1380	913	1600	1450	---	857	361	---	731
26	---	1360	1500	1400	1440	1520	1410	---	857	333	606	773
27	---	1360	1440	1400	1730	1580	1420	---	857	377	---	---
28	---	1320	1430	1290	1610	1610	1340	---	810	405	---	---
29	---	1330	1340	1450	---	1640	1520	---	773	194	---	---
30	---	1370	1430	1380	---	1660	1540	---	715	407	---	---
31	---	---	1380	1460	---	1690	---	---	---	599	---	---
MONTH	---	1220	1330	1250	1360	1780	1630	---	---	560	450	---

DISSOLVED SOLIDS (TONS/DAY), MEAN VALUES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(CALCULATED FROM CONTINUOUS MONITOR RECORDS)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	---	1.4	0.76	1.1	8.5	1.0	0.45	---	22	0.21	---
2	0.02	0.03	1.4	0.89	1.6	2.6	0.98	0.49	---	6.1	0.12	---
3	0.02	0.03	1.5	1.9	2.2	2.5	0.80	0.30	---	15	0.09	---
4	0.02	0.03	1.5	---	1.5	1.9	0.96	0.12	---	15	0.10	---
5	0.02	0.06	1.9	0.15	1.1	3.0	0.81	---	---	7.3	0.09	---
6	0.02	0.12	1.3	0.14	0.73	2.9	0.96	---	---	4.4	0.06	---
7	0.02	0.18	2.0	0.17	0.19	1.9	0.85	---	---	3.3	0.06	---
8	---	0.18	2.4	0.22	0.10	1.6	0.70	---	0.02	1.9	0.12	---
9	---	0.20	2.2	0.10	0.16	2.1	0.67	---	565	1.1	58	---
10	---	0.18	2.4	0.47	0.26	1.8	0.70	---	399	0.71	23	---
11	---	0.23	0.72	1.1	0.34	2.4	0.67	---	616	0.44	13	---
12	---	0.25	0.59	0.41	0.65	2.8	0.70	---	665	0.35	7.7	---
13	---	0.97	0.51	0.58	1.3	2.2	0.54	---	310	0.31	5.8	---
14	---	1.3	0.46	0.58	1.8	1.6	0.55	---	201	0.30	5.4	---
15	---	0.32	1.3	0.40	1.6	1.5	0.54	---	100	0.29	4.9	---
16	---	0.56	0.65	0.76	2.5	1.1	0.78	---	48	0.31	4.6	---
17	0.05	0.84	0.57	0.66	1.3	0.77	1.3	---	22	0.38	5.6	0.13
18	0.12	0.81	0.58	0.66	2.3	0.92	0.98	---	9.7	0.27	2.3	0.68
19	0.12	1.1	0.51	0.43	2.9	0.88	0.71	---	4.3	0.19	0.51	0.04
20	---	0.83	0.46	0.52	2.3	0.78	0.71	---	80	0.16	0.13	---
21	---	0.88	0.50	0.58	0.79	0.80	0.56	---	126	0.14	0.08	---
22	---	0.81	0.53	0.56	0.43	0.78	0.51	---	23	0.11	0.06	---
23	---	0.47	0.43	0.44	0.42	0.68	0.38	---	19	61	0.08	---
24	---	0.31	0.39	0.49	0.62	0.68	0.39	---	16	19	0.05	0.07
25	---	0.99	0.55	0.67	2.1	0.78	0.43	---	9.5	6.7	---	0.08
26	---	1.4	0.60	1.1	9.8	0.94	0.38	---	6.7	2.5	0.01	0.04
27	---	1.2	0.62	1.1	3.8	1.1	0.38	---	4.6	0.63	---	---
28	---	0.93	0.69	1.3	16	1.1	0.36	---	3.5	0.19	---	---
29	---	1.2	0.61	1.7	---	1.1	0.45	---	2.9	2.9	---	---
30	---	1.4	0.92	1.8	---	0.89	0.89	---	3.7	1.0	---	---
31	---	---	0.70	1.3	---	0.82	---	---	---	0.71	---	---
MONTH	---	0.61	0.99	0.73	2.1	1.7	0.67	---	---	5.6	5.3	---

07324300 FOSS RESERVOIR NEAR FOSS, OKLA.

LOCATION.--Lat 35°32'18", long 99°10'40", in S1/2 sec.2, T.12 N., R.19 W., Custer County, near outlet works at dam on Washita River, 0.5 mi (0.8 km) upstream from Oak Creek, 3.5 mi (5.6 km) west of Stafford, 6.0 mi (9.6 km) north of Foss, and at mile 474.4 (763.3 km).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	RESER-VOIR STORAGE (AC-FT)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)
OCT. 02...	111600	--	--	92	152	0	1000	45	.30
NOV. 05...	110000	--	--	95	158	0	1000	46	.10
DEC. 07...	108600	--	--	98	156	0	1100	46	.50
JAN. 22...	108000	--	--	97	166	0	1100	47	.30
FEB. 24...	107400	--	--	95	164	0	1100	46	.50
MAR. 25...	106500	--	--	100	170	0	1100	48	.00
APR. 30...	104000	--	--	98	172	0	1100	48	.40
MAY 25...	101600	--	--	100	176	0	1200	49	.10
JUNE 22...	108200	--	--	96	160	0	1100	48	.20
JULY 23...	104000	--	--	95	152	0	1100	45	.30
AUG. 05...	103100	220	140	96	154	0	1100	49	.00
SEP. 13...	102000	210	160	97	144	0	1100	50	.50

RED RIVER BASIN

07324300 FOSS RESERVOIR NEAR FOSS, OKLA.

DRAINAGE AREA.--1,496 sq mi (3,874.6 km²).

PERIOD OF RECORD.--Chemical analyses: May 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TUR-BID-ITY (MG/L)
OCT. 02...	--	1720	2.34	1100	975	1.2	2020	7.9	--
NOV. 05...	--	1760	2.39	1100	970	1.2	2050	7.8	--
DEC. 07...	--	1770	2.41	1100	972	1.3	2080	7.9	--
JAN. 22...	--	1770	2.41	1100	968	1.3	2090	7.7	--
FEB. 24...	--	1800	2.45	1100	965	1.2	2090	7.8	--
MAR. 25...	--	1830	2.49	1100	961	1.3	2120	7.9	--
APR. 30...	--	1870	2.54	1100	959	1.3	2150	8.2	--
MAY 25...	--	1900	2.58	1200	1060	1.3	2170	8.1	--
JUNE 22...	--	1840	2.50	1100	969	1.5	2120	8.1	--
JULY 23...	--	1840	2.50	1100	975	1.2	2100	8.2	--
AUG. 05...	.04	1890	2.57	1100	970	1.2	2120	7.9	0
SEP. 13...	.03	1860	2.53	1100	982	1.3	2110	8.0	1

07324400 WASHITA RIVER NEAR FOSS, OKLA.

LOCATION.--Lat 35°32'20", long 99°19'10", in SW1/4SW1/4 sec. 1, T.12 N., R.19 W., Custer County, at gaging station at county road bridge, 0.4 mi (0.6 km) downstream from Oak Creek, 0.9 mi (1.4 km) downstream from Foss Dam, 2.5 mi (4.0 km) west of Stafford, 6.0 mi (9.6 km) north of Foss, and at mile 743.5 (1,196.3 km).

DRAINAGE AREA.--1,551 sq mi (4,017.1 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1946 to September 1948, water years 1950-1951 and 1956 (partial-record station), October 1946 to September 1948, October 1969 to current year.
Water temperatures: October 1946 to September 1948, October 1969 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01-10	3.3	61	260	0	660	17	.00	1260
11-20	3.2	59	302	2	600	19	.40	1240
21-31	27	60	262	0	640	18	.50	1240
NOV.								
01-10	18	58	130	0	600	16	.20	1030
11-20	27	55	188	0	500	15	.30	1000
21-30	27	56	250	0	530	16	.50	1080
DEC.								
01-15	3.4	57	218	0	530	16	.80	1060
16-31	4.7	56	250	0	500	17	.90	1050
JAN.								
01-10	3.9	61	162	0	580	19	1.6	1080
11-20	5.8	53	176	0	540	16	2.0	979
FEB.								
01-10	1.4	62	170	0	650	18	2.3	1120
11-20	1.6	59	262	4	680	17	2.4	1170
21-28	2.0	51	276	0	480	15	2.7	940
MAR.								
01-13	1.4	60	202	0	520	17	1.5	997
14-29	2.8	65	188	0	640	18	1.1	1140
30-31	9.6	90	200	0	1000	42	.90	1650
APR.								
01-10	8.4	98	160	0	1000	45	.70	1770
11-20	15	97	118	0	1100	48	.10	1760
21-30	14	96	132	0	1100	48	.00	1790
MAY								
01-15	6.6	94	136	0	1100	44	.90	1810
16-30	6.2	100	152	0	1200	49	.90	1950
31...	7.9	13	118	4	81	4.0	5.7	201
JUNE								
01...	76	14	88	4	49	7.0	.50	254
02...	4.7	24	130	6	220	9.0	.20	471
03-04	3.0	32	100	0	400	20	.20	680
05-08	3.2	68	224	0	1100	25	1.1	1670
09-11	63	11	148	0	80	5.8	2.4	261
12-18	8.2	26	244	12	160	10	2.3	488
19-21	8.2	17	172	0	120	8.0	2.6	371
22-25	3.6	31	314	0	180	10	1.7	577
26-30	3.4	39	306	2	280	14	1.5	675
JULY								
01...	45	38	166	8	360	19	.20	668
02...	35	64	226	0	660	28	2.4	1200
03-06	25	25	242	8	200	8.8	3.0	534
07-09	2.9	38	296	0	390	14	1.3	814
10-28	37	76	206	0	940	36	1.3	1580
29...	15	39	134	0	420	18	6.9	772
30-31	3.4	60	216	4	740	27	2.3	1280
AUG.								
01-06	1.7	74	236	4	880	34	1.2	1600
09-10	90	10	144	6	10	5.5	.20	165
12-15	20	22	226	0	85	9.0	2.3	335
16-19	7.4	20	202	6	80	8.5	1.6	317
20-26	3.0	40	340	0	230	15	1.5	676
27...	2.1	43	146	4	280	15	1.2	603
28-31	1.8	48	338	0	360	16	1.2	880
SEP.								
01-05	2.7	56	280	0	500	17	5.9	994
06-11	1.3	62	302	0	700	20	7.6	1330
12-15	20	35	302	0	270	10	3.2	672
16-17	2.4	62	288	0	840	20	1.4	1520
18-19	10	20	164	8	200	8.0	11	455
20-30	2.9	39	324	6	320	12	42	770
WTD. AVG.	--	58	197	1	620	23	1.5	1130
TIME WTD. AVG.	11	61	215	1	627	23	12	1160
TOT. LOAD (TONS)	--	583	1980	11	6230	233	946	11300

07324400 WASHITA RIVER NEAR FOSS, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,950 mg/1 May 16-30; minimum, 165 mg/1 Aug. 9-11.
Hardness: Maximum, 1,200 mg/1 May 16-30, June 5-8; minimum, 120 mg/1 June 5-8, Aug. 9-11.
Specific conductance: Maximum daily 2,350 micromhos June 8; minimum daily, 213 micromhos Aug. 15.
Water temperatures: Maximum, 29.0°C June 25; minimum 0.5°C Jan. 5, Mar. 3.

Period of record.--Dissolved solids (1946-48, 1969-71): Maximum, 1,950 mg/1 May 16-30, 1971; minimum, 165 mg/1 Aug. 9-11.
Hardness (1946-48, 1969-71): Maximum, 1,360 mg/1 Dec. 11-20, 1947, Jan. 21-31, Feb. 11-20, 1948; minimum, 120 mg/1 June 5-8, Aug. 9-11, 1971.
Specific conductance (1969-71): Maximum daily, 2,660 micromhos Sept. 30, 1970; minimum daily, 213 micromhos Aug. 15, 1971.
Water temperatures (1946-48, 1969-71): Maximum 35.0°C Aug. 10-11, 1948; minimum, freezing point on Feb. 12, Mar. 10-11, 1948, Jan. 8, 1970.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-10	1.71	11.2	790	577	.9	1510	8.0
11-20	1.69	10.7	760	509	.9	1470	8.0
21-31	1.69	90.4	770	555	.9	1480	7.9
NOV.							
01-10	1.40	61.2	620	513	1.0	1270	8.2
11-20	1.36	90.4	580	426	1.0	1210	8.2
21-30	1.47	90.4	650	445	1.0	1310	8.0
DEC.							
01-15	1.44	9.73	630	450	1.0	1280	8.1
16-31	1.43	13.3	630	430	1.0	1270	8.0
JAN.							
01-10	1.47	11.6	650	520	1.0	1330	8.3
11-20	1.33	14.3	590	450	.9	1230	8.3
FEB.							
01-10	1.52	4.23	740	600	1.0	1380	8.2
11-20	1.59	5.05	760	580	.9	1440	7.7
21-28	1.28	5.08	650	420	.9	1230	8.0
MAR.							
01-13	1.36	3.77	620	450	1.0	1230	8.2
14-29	1.55	7.39	720	570	1.1	1390	8.1
30-31	2.24	42.8	1100	940	1.2	2000	8.0
APR.							
01-10	2.41	80.1	1100	970	1.2	2040	8.3
11-20	2.39	71.3	1100	1000	1.3	2050	8.2
21-30	2.43	67.7	1100	990	1.3	2060	8.2
MAY							
01-15	2.46	32.3	1100	990	1.2	2040	7.8
16-30	2.65	32.6	1200	1100	1.3	2170	7.5
31...	.33	5.14	170	67	.4	386	8.5
JUNE							
01...	.35	52.1	170	91	.5	370	8.5
02...	.64	5.98	310	190	.6	680	8.6
03-04	.92	5.51	440	360	.7	945	8.3
05-08	2.00	12.7	1200	1000	.9	2040	8.0
09-11	.35	48.4	190	64	.3	384	8.3
12-18	.66	10.8	350	130	.6	692	8.6
19-21	.50	8.21	250	110	.5	531	8.3
22-25	.78	5.61	390	130	.7	813	8.3
26-30	.92	6.20	480	230	.8	943	8.4
JULY							
01...	.91	81.2	450	300	.8	937	8.6
02...	1.63	113	770	590	1.0	1480	8.3
03-06	.73	36.0	380	170	.6	752	8.5
07-09	1.11	6.37	560	320	.7	1100	8.3
10-28	2.15	150	1000	830	1.0	1860	8.3
29...	1.05	31.1	480	370	.8	1010	8.3
30-31	1.74	11.8	840	660	.9	1560	8.5
AUG.							
01-08	2.18	7.34	1000	800	1.0	1850	8.4
09-11	.22	40.1	120	0	.4	288	8.7
12-15	.46	18.1	240	55	.6	525	8.3
16-19	.43	6.33	220	44	.6	500	8.5
20-26	.92	5.46	460	180	.8	960	8.3
27...	.82	3.42	360	230	1.0	833	8.4
28-31	1.20	4.28	580	300	.9	1160	8.2
SEP.							
01-05	1.35	7.25	660	430	.9	1290	8.2
06-11	1.81	4.67	870	620	.9	1580	8.3
12-15	.91	2.90	470	220	.7	925	8.3
16-17	2.07	9.85	1000	760	.9	1750	8.3
18-19	.62	12.3	320	180	.5	672	8.5
20-30	1.05	6.03	540	260	.7	1040	8.4
WTD. AVG.	1.54	--	708	545	.9	1350	8.2
TIME WTD. AVG.	1.57	--	731	553	1.0	1390	8.2
TOT. LOAD (TONS)	--	--	--	--	--	--	--

07324400 WASHITA RIVER NEAR FOSS, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1310	1330	1360	1770	1170	1960	1920	368	950	1600	1240
2	1350	1410	1370	1650	1290	1390	2020	1880	679	1520	1560	1440
3	1550	1410	1330	1660	1320	1350	2040	1900	901	746	1960	1320
4	1550	1380	1280	1590	---	1310	2040	2090	1240	747	2140	1360
5	1550	1360	1290	1270	1440	1390	2050	2160	2110	741	---	1390
6	1720	1400	1430	1460	1440	1390	---	2150	2100	754	2150	1630
7	1740	1470	1410	1340	1500	1350	1980	2130	2070	978	---	1590
8	1620	1390	1310	1400	1440	1380	2040	2160	2350	1140	---	1530
9	1580	1500	1320	1270	1440	1350	1970	2140	432	1200	261	1730
10	1520	1450	1280	1260	1360	1330	1940	2150	478	1990	273	1670
11	1570	1300	1230	1360	1410	1290	2110	2140	303	1990	---	1620
12	1590	1460	1350	1280	1400	1260	2100	2180	621	1820	---	941
13	1550	1420	1300	1220	1450	1390	2110	2180	633	1830	446	932
14	---	1160	1320	1220	1500	1480	2100	2180	622	1960	550	899
15	1620	1160	1260	1310	1570	1400	2060	2190	733	2160	213	1020
16	1560	1240	1150	1320	1490	1500	2110	2190	750	2160	442	1700
17	1450	1330	1320	1310	1480	1460	2090	2200	780	---	613	1860
18	1460	1270	1230	1310	1700	1480	2100	2190	820	---	757	665
19	1440	1380	1310	1400	1380	1510	2030	2190	530	2120	789	657
20	1480	1400	1280	1510	1360	1500	2070	2200	530	2120	1030	850
21	1510	1400	1380	1420	1320	1730	2100	2220	524	2120	894	1110
22	1490	1400	1270	1420	1280	1650	2110	2220	710	1960	1020	1120
23	1590	1460	1270	1350	1350	1470	2110	2200	856	1970	867	1050
24	1590	1490	1390	1420	1280	1560	1950	---	858	1930	878	1020
25	1660	1430	1380	1400	---	1530	2100	---	878	2090	997	1010
26	1660	1350	1300	1420	1220	1590	2110	2210	1040	2080	1020	1000
27	1730	1400	1340	1810	1220	1560	2100	2160	1040	2080	833	1010
28	1690	1440	1350	1880	1220	1650	1990	2200	1040	2040	1170	1100
29	1690	1410	1240	1840	---	1590	2110	---	1070	1010	1040	1120
30	1690	1490	1190	1880	---	2050	2100	---	948	1530	1150	1180
31	1590	---	1400	1880	---	2030	---	386	---	1630	1250	---
MONTH	1570	1380	1310	1460	1410	1490	2060	2080	934	1630	997	1230

07324400 WASHITA RIVER NEAR FOSS, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	9.0	11.0	5.0	3.0	5.0	8.0	15.0	13.0	23.0	21.0	23.0
2	17.0	9.0	10.0	4.5	5.0	1.0	8.0	15.0	20.0	23.0	19.5	22.0
3	17.5	6.5	11.0	3.0	5.0	0.5	8.5	15.0	21.0	23.5	22.5	22.0
4	17.0	10.5	9.0	1.0	---	2.0	9.0	15.0	22.0	23.5	21.0	22.0
5	18.0	7.0	9.5	0.5	5.0	2.0	11.5	16.0	21.0	24.0	---	22.0
6	19.0	7.0	10.5	1.0	4.0	3.0	10.0	15.0	21.5	24.0	21.0	23.0
7	19.0	9.5	7.5	1.0	2.0	3.0	9.0	16.0	21.0	24.0	---	23.5
8	12.5	10.0	7.0	2.0	1.0	4.0	10.0	16.0	22.0	25.0	---	23.5
9	11.0	10.5	9.0	2.0	4.0	6.0	10.0	17.0	20.0	27.0	20.5	22.0
10	11.0	10.0	10.0	3.0	1.0	6.0	10.0	17.0	22.0	27.0	25.0	22.0
11	12.5	10.0	6.0	2.0	2.5	9.0	18.0	---	19.0	27.0	---	22.0
12	12.5	9.0	5.0	1.0	3.5	9.0	21.0	---	20.0	27.0	---	21.5
13	11.5	8.0	5.0	1.0	4.0	9.0	11.5	13.0	21.0	27.0	26.5	19.0
14	---	7.0	4.0	1.0	6.0	9.0	13.5	18.0	22.0	23.0	26.5	20.0
15	10.5	5.0	6.0	2.0	9.0	9.0	13.5	16.0	25.0	23.0	26.0	18.0
16	10.0	3.0	5.0	2.0	6.0	13.0	16.0	16.0	28.0	24.0	26.0	17.0
17	10.5	5.0	5.0	3.5	6.0	11.0	15.0	---	25.0	---	26.0	14.5
18	11.0	6.0	5.5	4.0	6.0	13.0	15.0	17.0	23.0	---	26.0	13.0
19	11.0	13.0	5.5	4.0	6.0	7.0	15.0	15.0	24.5	26.0	26.0	12.5
20	11.5	12.0	5.5	4.5	5.0	7.5	14.0	16.0	23.5	26.0	26.0	11.0
21	13.0	12.0	5.5	5.0	2.0	13.0	14.0	16.0	23.5	26.0	26.0	12.0
22	18.0	6.0	5.0	6.5	1.0	12.5	15.0	15.0	24.5	26.0	26.0	14.0
23	16.0	3.0	3.5	4.5	1.0	7.0	14.0	15.0	23.5	26.0	26.0	13.5
24	15.0	2.0	2.0	4.5	1.0	8.0	14.0	---	23.5	26.0	26.0	14.0
25	15.0	2.5	3.5	4.5	---	10.0	15.0	17.0	29.0	26.0	26.0	15.0
26	15.0	12.0	3.5	4.5	3.0	10.0	15.0	17.0	23.0	26.0	26.0	18.0
27	10.0	12.0	3.0	4.5	4.0	10.0	15.0	19.0	23.0	26.0	26.0	20.0
28	12.0	12.5	2.5	4.5	4.0	12.0	15.0	19.0	23.5	26.5	23.0	20.0
29	9.0	13.0	2.5	4.0	---	12.0	15.0	---	22.5	26.0	23.5	21.0
30	9.5	13.0	4.0	4.5	---	9.5	15.0	---	23.0	26.0	24.0	19.0
31	5.5	---	5.0	3.5	---	9.5	---	15.0	---	23.0	22.0	---
MONTH	13.5	8.5	6.0	3.0	4.0	8.0	13.0	16.0	22.5	25.0	24.5	18.5

07325500 WASHITA RIVER AT CARNEGIE, OKLA.

LOCATION.--Lat 35°07'02", long 98°33'49", in NW1/4NW1/4 sec.3, T.7 N., R.13 W., Caddo County, at gaging station at bridge on State Highway 9, 1,300 ft (396.2 m) upstream from Running Creek, 2.7 mi (4.3 km) east of Carnegie, and at mile 353.9 (569.4 km).

DRAINAGE AREA.--3,129 sq mi (8,104.1 km²), includes that of Running Creek.

PERIOD OF RECORD.--Chemical analyses: Water years 1948-53 (partial-record station), October 1953 to current year.
Water temperatures: October 1953 to current year.
Sediment records: May 1947 to September 1950.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01-02	32	40	110	28	400	39	2.6	794
03-05	27	77	176	0	570	98	3.0	1130
06-11	22	120	168	0	720	140	2.1	1430
12-31	23	140	188	0	920	160	.20	1760
NOV.								
01-15	23	150	236	12	950	170	.40	1900
16-30	31	130	292	20	980	140	.20	1960
DEC.								
01-15	32	140	212	0	970	140	.30	1960
16-31	35	120	324	0	980	130	1.8	2010
JAN.								
01-04	40	130	136	0	970	130	.30	1760
05-06	34	140	322	0	1000	140	.90	2080
07-10	34	56	200	8	640	40	6.4	1260
11-20	37	97	256	18	890	96	6.3	1710
21-31	35	130	224	0	960	130	5.5	1810
FEB.								
01-10	31	140	136	0	960	130	.10	1840
11-20	36	140	266	14	990	130	4.0	1990
21-28	44	130	230	10	920	120	.70	1860
MAR.								
01-10	51	96	168	0	920	89	1.3	1660
11-20	30	97	252	0	830	100	2.0	1710
21-30	23	130	234	0	900	120	.60	1610
APR.								
01-10	12	110	264	8	840	120	3.0	1690
11-18	7.6	87	236	6	660	86	2.8	1320
19-20	5.1	57	226	0	480	48	2.4	970
21-30	15	140	232	30	860	150	.90	1680
MAY								
01-10	12	130	228	0	860	130	2.9	1730
11-20	7.2	98	168	16	720	96	2.2	1410
21-31	12	57	222	8	460	50	2.7	1010
JUNE								
01...	321	5.2	96	2	29	3.0	.20	155
02-03	68	68	114	0	360	66	.20	768
04...	118	29	144	10	120	25	4.7	410
05-09	77	49	124	16	510	41	2.2	1020
10...	351	37	96	16	290	26	1.3	618
11...	402	21	122	2	110	10	11	545
12-13	504	28	90	16	390	23	.70	729
14...	320	16	136	4	110	10	6.7	353
15-22	60	22	142	4	250	20	3.9	568
23-29	29	52	186	4	380	49	3.3	870
30...	7.8	15	48	0	76	6.0	84	334
JULY								
01-02	1100	7.4	98	4	76	7.0	.40	238
03-06	496	16	110	0	320	16	3.4	610
07-14	28	36	174	2	440	34	3.1	893
15-24	13	39	216	8	360	34	4.8	816
25-28	77	89	146	0	940	50	1.6	1620
29...	65	70	148	4	650	45	2.8	1240
30-31	70	86	138	0	940	57	2.7	1650
AUG.								
01-12	18	58	158	0	610	43	3.4	1110
13-14	106	37	162	0	160	36	16	453
15...	66	23	46	4	430	16	.10	712
16-24	61	25	146	2	230	20	7.7	511
25-28	14	40	150	12	290	49	.10	692
29-30	217	6.3	80	0	34	4.1	4.2	144
31...	104	39	18	10	130	39	.20	309
SEP.								
01-02	43	100	164	0	470	120	.90	1110
03-05	29	20	90	0	230	16	7.8	474
06...	586	100	130	0	430	140	8.2	1090
07-11	203	18	100	0	52	19	4.6	215
12-14	101	32	118	0	100	36	2.3	324
15-18	132	38	132	0	130	42	2.9	394
19-20	1330	13	100	0	55	10	4.9	207
21-23	209	22	108	0	140	19	3.9	332
24-25	1180	7.0	96	0	15	5.0	1.7	129
26-30	647	17	106	0	100	14	2.9	275
WTD. AVG.	--	45	137	3	341	44	3.0	724
TIME WTD. AVG.	78	92	198	6	686	92	2.7	1370
TOT. LOAD (TONS)	--	3480	10500	237	26100	3360	231	55400

RED RIVER BASIN

07325500 WASHITA RIVER AT CARNEGIE, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 2,080 mg/l Jan. 5-6; minimum, 129 mg/l Sept. 24-25.
Hardness: Maximum, 1,200 mg/l Nov. 16-30, Dec. 16-31, Jan. 5-6, Feb. 11-20; minimum, 86 mg/l Sept. 24-25.
Specific conductance: Maximum daily, 2,510 micromhos Feb. 14; minimum daily, 197 micromhos Sept. 25.
Water temperature: Maximum, 33.0°C July 17; minimum, 1.0°C Feb. 8.

Period of record.--Dissolved solids: Maximum, 2,460 mg/l May 9-10, 1956; minimum, 129 mg/l Sept. 24-25, 1971.
Hardness: Maximum, 1,480 mg/l May 9-10, 1956; minimum, 86 mg/l Sept. 24-25, 1971.
Specific conductance: Maximum daily, 3,530 micromhos Aug. 26, 1954; minimum daily, 197 micromhos Sept. 25, 1971.
Water temperatures: Maximum, 33.0°C July 11, 1965, July 17, 1971; minimum, freezing point on many days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-02	1.08	68.6	500	363	.8	1050	8.9
03-05	1.54	82.4	660	516	1.3	1490	8.3
06-11	1.94	84.9	840	702	1.8	1830	8.3
12-31	2.39	109	1000	846	1.9	2190	8.3
NOV.							
01-15	2.58	118	1100	886	2.0	2330	8.5
16-30	2.67	164	1200	927	1.6	2350	8.6
DEC.							
01-15	2.67	169	1100	930	1.8	2260	8.1
16-31	2.73	190	1200	930	1.5	2320	8.2
JAN.							
01-04	2.39	190	1000	890	1.8	2140	7.7
05-06	2.83	191	1200	940	1.7	2450	8.0
07-10	1.71	116	800	620	2.1	1550	8.4
11-20	2.33	171	1100	860	1.3	2040	8.6
21-31	2.46	171	1100	920	1.7	2200	8.2
FEB.							
01-10	2.50	154	1000	890	1.9	2160	8.1
11-20	2.71	193	1200	960	1.8	2350	8.5
21-28	2.53	221	1100	900	1.7	2200	8.5
MAR.							
01-10	2.26	229	1000	860	1.3	1970	8.3
11-20	2.33	159	1000	790	1.3	2030	8.2
21-30	2.19	100	980	790	1.8	1890	8.3
APR.							
01-10	2.30	54.8	1000	770	1.5	2050	8.5
11-18	1.80	27.1	820	620	1.3	1670	8.4
19-20	1.32	13.4	630	450	1.0	1280	8.2
21-30	2.28	68.0	1000	760	1.9	2130	8.8
MAY							
01-10	2.35	56.1	1000	810	1.8	2070	6.2
11-20	1.92	27.4	830	670	1.5	1720	8.6
21-31	1.37	32.7	620	430	1.0	1220	8.5
JUNE							
01...	.21	134	100	18	.2	228	8.4
02-03	1.04	141	420	330	1.4	1060	8.2
04...	.56	131	240	110	.8	577	8.7
05-09	1.39	212	620	490	.8	1250	8.8
10...	.84	586	360	260	.8	830	8.9
11...	.47	372	200	97	.6	476	8.4
12-13	.99	992	470	570	.6	936	8.9
14...	.48	305	210	92	.5	481	8.5
15-22	.77	92.0	350	230	.5	756	8.4
23-29	1.18	68.1	520	360	1.0	1130	8.5
30...	.45	7.03	160	120	.5	423	7.6
JULY							
01-02	.32	707	160	73	.2	355	8.5
03-06	.83	817	410	320	.3	818	7.9
07-14	1.21	67.5	570	420	.6	1130	8.4
15-24	1.11	28.6	520	330	.7	1060	8.5
25-28	2.20	337	970	850	1.2	1880	7.7
29...	1.69	218	740	610	1.1	1510	8.5
30-31	2.24	312	1000	890	1.2	1900	7.9
AUG.							
01-12	1.51	53.9	700	570	1.0	1400	8.3
13-14	.62	130	280	150	1.0	696	7.8
15...	.97	127	460	420	.5	932	8.7
16-24	.69	84.2	340	220	.6	729	8.4
25-28	.94	26.2	410	270	.8	942	8.7
29-30	.20	84.4	96	30	.3	233	8.1
31...	.42	86.8	140	110	1.4	516	9.4
SEP.							
01-02	1.51	129	600	470	1.8	1470	8.0
03-05	.64	37.1	310	240	.5	665	8.0
06...	1.48	1730	560	450	1.8	1850	8.3
07-11	.29	118	130	48	.7	345	7.7
12-14	.44	88.4	180	83	1.0	516	7.7
15-18	.54	140	230	120	1.0	615	8.0
19-20	.28	743	130	48	.5	323	7.7
21-23	.45	187	210	120	.6	519	7.6
24-25	.18	411	86	7	.3	212	8.1
26-30	.37	480	180	93	.6	435	7.1
WTD. AVG.	.98	--	439	322	.8	930	8.1
TIME WTD. AVG.	1.86	--	815	644	1.3	1670	8.3
TOT. LOAD (TONS)	--	--	--	--	--	--	--

07325500 WASHITA RIVER AT CARNEGIE, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	2240	2390	2300	2340	2360	2170	2210	236	332	1520	1700
2	1130	2240	2400	2320	2330	2090	2170	2210	1460	417	1550	1340
3	1490	2370	2400	2220	2350	1970	2180	2160	921	777	1640	549
4	1500	2360	2390	2280	2350	2030	2160	2180	580	---	1380	777
5	1480	2370	2370	2440	2360	1980	2080	2120	1340	746	1390	658
6	1720	2450	2370	2440	2360	2060	2070	2260	1240	755	1500	1460
7	1780	2450	2380	1560	2460	2060	2040	2310	1160	975	---	367
8	1790	2260	2310	1570	---	2060	1880	1980	1070	920	1040	329
9	1840	2430	2400	1570	2260	2160	1960	1970	1540	997	1040	326
10	1930	2440	2350	1490	2260	2270	1840	1770	851	1160	1470	329
11	1980	2420	2350	1640	2390	2280	1770	2020	476	1160	1510	360
12	2060	2440	2380	1840	2360	2240	1690	1900	1060	1220	1500	466
13	2050	2370	2340	1920	2390	2240	1720	1900	853	1320	664	542
14	2180	2370	2360	2100	2510	2230	1730	1740	481	1220	709	542
15	2290	2400	2370	2190	2500	1990	1760	1730	560	1080	1020	575
16	2290	2390	2370	2200	2480	1990	1700	1730	567	1190	581	634
17	2340	2360	2370	2170	2350	2040	1440	1650	716	1180	458	624
18	2340	2420	2330	2180	2320	2010	1470	1570	718	1120	768	636
19	2340	2420	2340	2190	2270	2020	1330	1550	849	1130	779	381
20	2230	2370	2340	2200	2340	1970	1240	1550	869	1010	774	256
21	2210	2400	2340	2210	2240	1970	2080	1450	863	997	877	469
22	2340	2360	2340	2230	2360	1970	2110	1440	902	934	882	542
23	2340	2270	2290	2290	2240	1970	2030	1340	1200	922	758	543
24	2340	2320	2280	2290	2240	2080	1940	1270	1220	992	759	214
25	2330	2320	2280	2290	2300	2070	1980	1280	875	1940	915	197
26	2300	2350	2280	2280	2200	2050	2250	1270	1180	1960	922	353
27	2270	2360	2310	2320	2170	2050	2370	1250	1100	1720	1000	351
28	2260	2360	2350	2300	2330	2090	2450	1290	1190	1960	1100	468
29	2250	2390	2350	2340	---	2180	2290	1170	1180	1500	218	456
30	2230	2400	2330	2360	---	2180	2110	1150	423	1910	233	529
31	2280	---	2360	2350	---	---	---	1280	---	1910	577	---
MONTH	2030	2370	2350	2130	2340	2090	1930	1700	923	1180	984	566

07325500 WASHITA RIVER AT CARNEGIE, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	12.0	5.0	4.0	10.0	12.0	22.0	24.0	27.0	27.5	26.0
2	19.0	9.0	12.0	7.0	4.0	9.0	14.0	20.0	26.0	26.5	25.0	27.0
3	21.0	8.0	11.0	6.0	5.0	6.0	15.0	21.0	24.0	25.0	26.0	26.0
4	21.0	10.0	9.0	7.0	4.0	5.0	12.0	22.5	26.0	---	27.0	26.5
5	20.0	8.0	8.0	5.0	4.0	7.0	13.0	18.0	27.0	26.0	27.0	26.0
6	22.0	9.0	7.0	5.0	3.5	6.0	9.0	21.0	25.0	27.5	27.0	26.0
7	22.0	10.0	10.0	5.5	1.0	7.0	10.0	22.0	27.0	28.0	27.0	26.5
8	19.0	10.0	12.0	5.5	---	10.0	14.0	22.0	27.0	28.0	26.0	26.0
9	15.0	11.0	12.0	5.0	2.0	9.0	12.0	21.0	27.0	28.5	27.0	26.5
10	15.0	10.0	12.0	5.0	4.0	10.0	16.0	22.0	27.0	28.0	27.0	26.0
11	18.0	7.0	7.0	5.0	5.0	10.0	16.0	20.0	27.0	28.5	28.0	25.0
12	16.0	8.0	9.0	3.0	5.0	10.0	23.0	19.0	25.0	28.5	27.0	26.0
13	15.0	---	8.0	3.0	6.0	11.0	19.0	19.0	25.0	29.0	27.0	26.5
14	16.0	7.0	7.0	5.0	8.0	11.0	15.0	20.0	27.0	29.0	27.5	27.0
15	18.0	6.0	8.0	3.0	6.0	12.0	20.0	22.0	26.0	29.5	26.0	---
16	18.0	6.0	7.0	4.0	8.0	12.5	17.0	22.0	26.0	29.5	26.0	25.0
17	13.0	7.0	6.0	5.0	1.0	10.5	22.0	22.0	26.5	33.0	26.0	24.0
18	13.0	7.5	7.0	5.0	13.0	10.0	20.0	23.0	27.0	28.0	26.0	24.5
19	12.0	9.5	7.0	4.0	10.0	9.0	22.0	24.0	30.0	27.0	25.0	18.0
20	14.0	5.0	5.0	4.0	9.0	15.0	18.0	23.0	27.0	28.0	25.0	14.0
21	15.0	11.0	8.0	5.0	7.0	15.0	21.0	24.0	27.0	28.0	26.0	18.0
22	17.0	7.0	9.0	5.0	4.0	10.0	21.0	23.0	27.0	27.0	26.5	18.0
23	18.0	5.0	3.0	5.0	4.5	11.0	17.0	23.0	27.0	26.0	26.0	18.0
24	12.0	3.0	5.0	6.0	7.0	11.0	20.0	24.0	27.5	26.0	26.0	16.0
25	13.0	9.5	4.0	5.5	8.0	10.0	19.0	24.0	28.0	28.0	26.0	18.0
26	17.0	8.0	4.0	6.0	9.0	11.0	24.0	24.5	27.5	27.0	26.5	18.0
27	14.0	7.0	4.0	5.0	10.0	13.0	21.0	23.0	27.0	27.0	27.0	17.5
28	12.0	8.0	5.0	5.5	8.0	16.0	22.0	26.0	27.0	27.0	27.0	18.0
29	13.0	10.0	5.0	5.5	---	15.0	18.0	25.0	27.0	27.0	27.0	20.0
30	13.0	12.0	4.0	6.0	---	15.0	21.0	22.0	27.5	28.0	24.0	21.0
31	15.0	---	4.0	5.5	---	15.0	---	24.0	---	28.0	26.0	---
MONTH	16.5	8.0	7.5	5.0	6.0	10.5	17.5	22.0	26.5	28.0	26.5	22.5

07326500 WASHITA RIVER AT ANADARKO, OKLA.

LOCATION.--Lat 35°05'06", long 98°14'35", in NW1/4 sec.15, T.7 N., R.10 W., Caddo County, at gaging station at bridge on U.S. Highway 281 at north edge of Anadarko, 8.1 mi (13.0 km) upstream from Sugar Creek, and at mile 305.2 (491.1 km).

DRAINAGE AREA.--3,656 sq mi (9,469.0 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to current year(discontinued).
Water temperatures: October 1964 to current year(discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
01-08	31	9.4	128	46	44	7.4	144	4	425	34	.3
09-20	28	17	192	54	90	7.6	180	8	600	96	.4
21-31	35	22	248	73	120	6.4	244	4	740	128	.3
NOV.											
01-10	33	14	240	80	110	6.7	232	0	840	100	.3
11-20	34	13	260	73	130	6.8	244	0	840	110	.4
21-30	39	12	300	75	120	7.4	296	8	880	120	.4
DEC.											
01-10	42	18	260	80	110	6.6	242	0	840	120	.4
11-20	40	15	250	78	110	5.7	226	0	820	110	.4
21-31	42	14	250	78	100	5.3	240	0	800	100	.4
JAN.											
01-13	48	12	270	77	100	5.0	236	8	840	100	.4
14-17	58	14	230	55	59	6.2	204	12	620	47	.3
18-31	54	17	260	74	96	5.3	242	8	780	91	.3
FEB.											
01-15	53	15	270	70	110	4.6	240	12	800	100	.4
16-28	56	14	260	70	100	4.3	250	0	780	97	.4
MAR.											
01-10	62	14	240	78	96	4.3	192	0	820	86	.3
11-20	51	12	250	79	94	5.0	222	4	800	86	.4
21-31	40	11	220	66	82	5.2	250	16	660	79	.5
APR.											
01-10	24	6.5	220	66	91	6.3	264	8	620	65	.5
11-20	13	4.5	220	66	85	6.8	270	10	630	78	.5
21-30	13	7.5	220	54	72	8.0	306	0	590	59	.5
MAY											
01-10	11	12	210	63	88	7.6	258	0	620	80	.4
11-20	9.5	9.1	230	64	88	8.0	242	0	700	70	.5
21-31	8.4	8.0	210	66	86	8.7	282	0	620	69	.5
JUNE											
01-02	269	12	140	11	9.7	6.1	102	0	320	6.5	.4
03-06	41	12	58	9.2	11	5.0	112	0	100	7.0	.4
07-09	28	13	110	23	39	7.2	168	0	260	35	.5
10-11	150	12	150	41	59	9.2	156	0	440	55	.5
12-14	368	16	82	16	24	6.8	108	0	190	19	.4
15-22	88	14	93	10	19	6.2	124	0	210	14	.4
23-30	19	18	130	33	37	9.6	180	0	350	28	.5
JULY											
01-02	110	19	140	35	44	9.2	194	0	390	40	.4
03-08	482	7.8	82	16	12	6.5	100	0	200	9.6	.3
09-18	24	15	140	26	23	8.0	134	0	380	20	.3
19-25	15	14	160	40	40	8.9	166	0	440	39	.4
26-27	82	8.1	61	37	33	7.1	178	0	210	20	.4
28-31	93	14	170	66	79	9.9	156	0	630	70	.4
AUG.											
01-12	31	13	180	40	88	11	136	0	730	47	.4
13-15	105	8.2	150	47	43	8.5	140	0	480	33	.4
16-17	82	8.4	210	69	110	9.9	172	0	700	120	.3
18-19	102	10	80	28	28	7.7	140	0	210	25	.4
20-26	32	9.3	100	26	26	8.8	132	0	280	23	.3
27-31	88	11	150	38	42	9.6	168	0	380	36	.5
SEP.											
01...	101	12	110	35	75	8.2	122	0	340	96	.4
02-05	42	13	92	10	24	6.3	98	0	90	22	.4
06-07	152	14	130	34	76	8.9	152	0	370	93	.4
08-20	192	12	50	12	25	6.6	110	0	100	28	.4
21-22	574	11	36	8.3	12	4.9	96	0	58	10	.2
23-25	259	12	58	13	19	6.0	102	0	130	18	.5
26-28	1140	12	45	9.7	14	5.4	102	0	78	15	.3
29-30	298	10	50	12	15	5.6	98	0	100	16	.3
WTD. AVG.	--	12	134	36	49	6.4	155	2	386	47	.4
TIME WTD. AVG.	72	13	195	56	75	6.8	208	3	591	71	.4
TOT. LOAD (TONS)	--	884	9670	2620	3540	460	11100	119	27800	3360	26

07326500 WASHITA RIVER AT ANADARKO, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,690 mg/l Nov. 21-30; minimum, 186 mg/l Sept. 21-22.
Hardness: Maximum, 1,100 mg/l Nov. 21-30; minimum, 120 mg/l Sept. 21-22.
Specific conductance: Maximum daily, 2,240 micromhos Jan. 10; minimum daily, 293 micromhos Sept. 21.
Water temperatures: Maximum, 30.0°C June 27; minimum, freezing point on Jan. 5-8, 10-11, Feb. 8-10.

Period of record.--Dissolved solids: Maximum, 1,820 mg/l May 26-29, 1966; minimum, 152 mg/l Sept. 22, 1965.
Hardness: Maximum, 1,140 mg/l May 26-29, 1966; minimum, 120 mg/l Sept. 22, 1965, Sept. 21-22, 1971.
Specific conductance: Maximum daily, 2,480 micromhos Oct. 31, 1964; minimum daily, 242 micromhos Sept. 22, 1965.
Water temperatures: Maximum, 37.0°C Aug. 6, 1970; minimum, freezing point on many days during winter period.

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service, Chickasha, Oklahoma. Chemical data of miscellaneous samples published for water years 1952-55.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.											
01-08	1.4	.48	850	1.13	69.5	510	385	.8	1090	8.3	290
09-20	1.4	.98	1280	1.74	96.8	700	539	1.5	1620	8.3	450
21-31	1.0	.76	1610	2.19	152	920	713	1.7	1990	8.4	480
NOV.											
01-10	1.5	.49	1530	2.08	136	940	750	1.6	1900	8.3	290
11-20	.90	.50	1520	2.07	160	940	740	1.8	2040	8.3	290
21-30	1.9	.11	1690	2.30	178	1100	844	1.6	2160	8.4	260
DEC.											
01-10	1.2	.40	1620	2.20	184	970	771	1.5	2000	8.2	320
11-20	1.0	.29	1590	2.16	172	950	765	1.6	1960	8.3	290
21-31	.60	.47	1560	2.12	177	950	753	1.4	1950	8.2	300
JAN.											
01-13	2.2	.80	1640	2.23	212	990	783	1.4	1980	8.5	270
14-17	2.9	.87	1250	1.70	196	800	613	.9	1530	8.6	190
18-31	3.7	1.1	1550	2.11	226	950	738	1.4	1900	8.5	340
FEB.											
01-15	2.3	.90	1630	2.22	233	960	743	1.5	1980	8.5	270
16-28	1.9	.59	1570	2.14	246	940	735	1.4	1910	8.3	240
MAR.											
01-10	1.6	.24	1520	2.07	254	930	772	1.4	1860	8.3	340
11-20	1.7	.51	1510	2.05	208	940	751	1.3	1890	8.4	260
21-31	1.4	1.1	1360	1.85	147	830	598	1.2	1700	8.6	190
APR.											
01-10	1.8	.72	1370	1.86	88.8	850	600	1.4	1650	8.4	150
11-20	1.7	1.0	1340	1.82	47.0	830	592	1.3	1680	8.4	200
21-30	2.3	.98	1300	1.77	46.0	760	509	1.1	1590	8.2	150
MAY											
01-10	2.4	1.1	1340	1.82	40.0	780	568	1.3	1660	8.3	280
11-20	1.9	1.3	1440	1.96	37.0	840	641	1.3	1750	8.3	300
21-31	1.8	1.4	1310	1.78	30.0	790	559	1.2	1640	8.2	270
JUNE											
01-02	6.9	.50	613	.83	445	400	320	.2	787	8.0	94
03-06	4.5	.44	287	.39	31.4	180	88	.4	414	8.1	110
07-09	4.1	.63	623	.85	47.1	370	230	.9	863	8.3	160
10-11	3.5	.92	932	1.27	377	550	420	1.1	1240	8.3	250
12-14	6.5	.50	459	.62	456	270	180	.6	643	8.1	150
15-22	4.5	.46	485	.66	110	300	200	.5	683	8.1	160
23-30	2.0	.75	757	1.03	38.8	460	310	.8	992	8.1	220
JULY											
01-02	2.6	.69	854	1.16	254	500	340	.9	1090	8.2	200
03-08	4.6	.40	414	.56	539	270	190	.3	584	8.0	94
09-18	2.3	.47	752	1.02	48.7	470	360	.5	944	8.1	180
19-25	2.5	.44	938	1.28	38.0	570	430	.7	1140	8.2	180
26-27	2.3	.64	480	.65	106	310	160	.8	718	8.2	94
28-31	2.0	.47	1190	1.62	299	700	570	1.3	1500	8.0	250
AUG.											
01-12	2.3	.46	1260	1.71	105	780	670	1.1	1560	7.9	270
13-15	1.9	.46	866	1.18	246	560	450	.8	1170	7.8	200
16-17	2.2	.44	1360	1.85	301	800	660	1.7	1620	7.9	300
18-19	4.5	.48	475	.65	131	300	190	.7	708	8.0	150
20-26	3.6	.55	570	.78	49.2	370	260	.6	807	7.8	170
27-31	1.2	.73	766	1.04	137	480	340	.8	1040	7.9	190
SEP.											
01...	2.7	.31	820	1.12	224	420	320	1.6	1180	8.3	140
02-05	3.8	.55	260	.35	29.5	150	70	.9	408	8.1	100
06-07	1.7	.70	838	1.14	344	460	340	1.5	1180	8.3	210
08-20	3.4	.52	297	.40	158	170	80	.8	473	8.0	100
21-22	4.2	.40	186	.25	288	120	41	.5	307	8.0	70
23-25	2.5	.40	323	.44	226	200	120	.6	473	8.0	130
26-28	3.0	.38	248	.34	763	150	66	.5	370	8.0	90
29-30	2.0	.39	265	.36	213	170	90	.5	412	8.0	60
WTD. AVG.	2.2	.54	800	1.09	--	486	357	.9	1040	8.1	177
TIME WTD. AVG.	3.8	.67	1190	1.62	--	719	547	1.2	1500	8.2	242
TOT. LOAD (TONS)	143	39	57500	--	--	--	--	--	--	--	13

07326500 WASHITA RIVER AT ANADARKO, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1220	2060	2000	1910	1920	1800	1710	1500	986	1060	681	1130
2	1190	1940	2010	1820	1990	1880	1770	1640	577	1140	1780	362
3	1190	1940	1930	1810	1990	1940	1690	1570	372	589	1850	430
4	951	1940	1930	1890	2020	2030	1680	1620	381	656	1650	442
5	951	1890	2090	1880	2000	1980	1660	1700	403	690	1340	---
6	1100	1890	2050	1960	1990	2020	1690	1660	493	434	1520	950
7	1100	1900	2080	1960	1960	1870	1770	1670	775	478	1740	1400
8	1100	1940	2010	2050	1900	1780	1820	1730	958	672	1720	496
9	1480	1930	2130	2200	1990	1760	1790	1750	808	809	1540	369
10	1490	1920	2010	2240	2000	1710	1780	1740	1040	883	1450	427
11	1490	1990	2000	2130	1920	1800	1780	1710	1420	906	1460	441
12	1510	2020	2010	2080	1990	1800	1760	---	731	916	1320	407
13	1510	2110	2070	1930	2020	1750	1710	1760	478	942	1280	388
14	1510	2130	1990	1580	1990	1800	1720	1690	694	1010	1230	410
15	1780	2080	1990	1400	1870	1890	1680	1690	851	1040	962	486
16	1780	2040	1880	1530	2030	1940	1700	1740	617	1040	1850	519
17	1770	2080	1930	1620	2010	1980	1640	1760	527	1030	1780	538
18	1780	2190	1900	1680	2010	2020	1620	1750	608	1020	753	524
19	1760	2030	1900	1770	2070	1990	1620	1750	707	1060	642	626
20	1760	1970	1910	1870	1990	1870	1620	1780	692	1080	906	588
21	1930	2170	1830	1950	1910	1780	1580	1780	646	1060	816	293
22	1920	2200	2040	1950	1980	1750	1610	1660	749	1100	659	317
23	1920	2200	1940	1850	1700	1700	1600	1890	844	1230	733	362
24	2010	2200	1940	1950	1800	1720	1640	1650	868	1050	898	471
25	2010	2200	---	1940	1800	1710	1620	1650	1000	1390	858	560
26	2010	2190	1890	1940	1790	1740	1620	1710	1060	669	830	346
27	2090	2160	2030	1930	1910	1690	1600	1640	1070	767	952	439
28	2090	2180	2000	1930	1870	1690	---	1700	1020	1060	1100	326
29	2090	2220	1970	1960	---	1670	1610	1620	1010	1750	1100	387
30	2050	2050	1970	1960	---	1670	1470	1570	1030	1670	1100	440
31	2060	---	1940	1940	---	1690	---	1590	---	1600	992	---
MONTH	1630	2060	1980	1890	1940	1820	1670	1680	781	994	1210	514

07326500 WASHITA RIVER AT ANADARKO, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	14.0	10.0	4.0	3.0	7.5	12.0	24.0	19.0	26.5	23.5	24.5
2	25.0	12.0	11.5	5.0	3.0	5.5	11.5	18.5	23.5	26.0	23.0	24.5
3	22.0	12.0	10.5	5.0	4.0	2.5	15.0	17.5	22.5	24.0	23.5	24.5
4	18.0	12.0	8.0	1.0	2.5	3.0	10.0	21.0	23.5	25.0	23.5	24.5
5	16.0	8.0	10.0	0.0	6.0	6.5	8.5	19.5	23.5	25.5	23.5	---
6	16.0	10.0	6.5	0.0	2.0	6.0	8.0	18.5	24.5	26.5	23.5	25.5
7	10.0	9.0	6.0	0.0	1.0	5.0	8.5	19.0	24.5	25.5	23.0	26.5
8	13.0	10.0	8.0	0.0	0.0	6.5	10.5	18.5	23.5	28.0	24.5	26.5
9	15.0	9.0	7.5	2.0	0.0	9.5	13.0	18.5	23.0	29.0	23.5	26.5
10	15.0	10.0	10.5	0.0	0.0	8.0	13.5	19.0	24.5	28.0	24.5	26.0
11	17.0	13.0	5.0	0.0	2.0	12.5	15.5	19.5	24.5	28.5	25.5	25.0
12	17.0	11.0	5.0	2.0	3.5	11.0	17.5	---	24.0	26.5	25.5	24.5
13	17.0	11.0	6.0	5.0	3.0	11.5	5.0	15.5	25.5	26.5	26.0	22.5
14	18.0	2.0	9.0	6.0	6.0	12.0	13.5	18.0	25.5	26.5	24.5	22.5
15	15.0	2.0	5.0	4.0	9.0	11.5	16.0	18.5	25.5	27.5	24.5	22.0
16	16.0	9.0	5.0	6.0	8.0	11.0	17.0	20.0	26.0	27.5	23.5	20.5
17	15.0	9.0	5.0	4.0	7.0	11.0	20.0	19.5	26.0	28.0	25.0	18.5
18	16.0	10.0	5.5	8.0	13.0	11.5	20.0	20.0	26.0	25.5	27.0	26.0
19	15.0	10.0	4.0	4.0	10.0	8.0	19.0	16.0	26.0	27.0	25.5	23.5
20	15.0	9.0	5.0	3.0	6.0	7.0	16.0	18.5	24.5	23.0	25.5	12.0
21	18.0	9.0	5.5	8.0	5.0	9.5	16.0	21.0	25.0	23.5	25.5	13.5
22	18.0	9.0	10.0	8.0	2.0	8.0	18.0	21.0	24.0	25.5	26.0	14.5
23	20.0	10.0	6.0	5.0	1.5	7.0	16.5	21.5	26.0	26.0	26.0	15.5
24	20.0	9.0	5.5	5.0	3.5	9.0	22.5	19.5	26.0	25.5	26.0	15.5
25	20.0	9.0	---	8.0	8.0	8.0	18.0	19.0	25.0	29.5	26.0	17.5
26	18.0	9.0	3.0	4.0	5.0	7.5	18.0	21.0	27.0	27.0	25.0	17.5
27	17.0	10.0	4.0	8.0	6.0	14.5	19.5	21.0	30.0	25.5	25.0	19.0
28	16.0	10.0	3.0	4.0	7.5	12.5	---	21.5	25.0	25.5	25.0	22.0
29	14.0	5.0	5.0	5.0	---	10.0	15.0	21.5	25.0	26.0	25.5	22.5
30	14.0	10.0	5.0	6.0	---	13.0	14.5	19.0	25.5	24.0	24.0	23.5
31	13.0	---	4.0	4.0	---	12.5	---	22.5	---	23.5	25.0	---
MONTH	16.5	9.5	6.5	4.0	4.5	9.0	15.0	19.5	25.0	26.0	25.0	21.5

07326720 TONKAWA CREEK NEAR ANADARKO, OKLA.

LOCATION.--Lat 35°03', long 98°15', in NW1/4 sec.34, T.7 N., R10 W., Caddo County, at gaging station at bridge on county road, approximately 1.6 mi (2.6 km) south of Anadarko.

DRAINAGE AREA.--26.0 sq mi (67.3 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year(discontinued).
Water temperatures: October 1967 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
NOV.											
06-10	.10	29	210	32	34	5.9	116	0	520	80	.5
11-20	.12	30	190	29	32	5.2	160	0	490	28	.6
21-30	.10	30	200	29	32	5.5	188	0	480	29	.6
DEC.											
01-10	.10	45	180	38	33	3.0	136	0	490	19	.5
11-20	.16	41	190	30	34	2.4	170	0	480	20	.5
21-31	.14	42	190	29	32	2.1	170	0	470	16	.6
JAN.											
01-10	.26	33	188	32	35	3.2	132	0	500	20	.4
11-20	.27	26	210	32	33	2.9	148	0	530	21	.4
21-31	.20	23	228	34	34	2.4	200	0	540	21	.5
FEB.											
01-10	.22	40	190	33	36	2.1	94	0	560	21	.5
11-24	.41	30	190	30	36	2.6	122	0	520	21	.5
25-28	.45	28	260	40	44	4.0	166	0	720	25	.5
MAR.											
01-10	.27	31	230	44	38	3.0	118	0	680	23	.5
11-20	.19	33	230	39	36	2.6	140	0	640	21	.6
21-31	.20	28	210	34	36	2.7	150	0	600	20	.6
APR.											
01-10	.20	19	230	38	36	2.8	240	0	580	19	.6
11-20	.16	18	250	34	38	2.9	256	0	580	21	.7
21-30	.11	19	240	35	38	3.1	264	0	560	19	.7
MAY											
01-05	.12	29	230	38	38	3.3	198	0	590	19	.6
09-10	.20	29	230	38	38	3.3	198	0	590	19	.6
11-13	.10	23	250	35	41	3.5	244	0	600	21	.6
26...	.10	26	280	36	41	6.0	302	0	640	25	.7
30-31	29	26	280	36	41	6.0	302	0	640	25	.7
JUNE											
01-10	1.6	38	270	36	33	6.5	156	0	690	23	.6
11-16	.15	34	290	40	38	6.0	226	0	700	26	.7
21-23	.43	25	220	30	39	6.8	244	0	490	22	.7
AUG.											
14...	9.9	--	58	8.3	6.2	4.4	54	0	140	4.0	.2
15-17	.30	11	100	14	14	5.2	110	0	240	12	.5
29-30	.70	18	150	22	19	7.2	226	0	300	11	.5
SEP.											
18-27	.47	19	160	32	30	5.9	248	0	400	20	.5
28-30	.10	26	240	54	37	4.9	246	0	630	28	.5
WTD. AVG.	--	28	236	33	35	5.1	220	0	569	22	.6
TIME WTD. AVG.	.57	30	214	34	35	3.7	177	1	546	22	.6
TOT. LOAD (TONS)	--	9.2	83	12	12	1.8	77	0	200	7.7	.2

RED RIVER BASIN

07326720 TONKAWA CREEK NEAR ANADARKO, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,380 mg/l June 11-16; minimum, 288 mg/l Aug. 14.
Hardness: Maximum, 890 mg/l June 11-16; minimum, 180 mg/l Aug. 14.
Specific conductance: Maximum daily, 1,750 micromhos June 9; minimum daily, 396 micromhos Aug. 14.
Water temperatures: Maximum, 30.5°C June 16; minimum, 1.0°C Feb. 6-7.

Period of record.--Dissolved solids: Maximum, 2,220 mg/l Jan. 13-13, 1968; minimum, 158 mg/l June 11, 1970.
Hardness: Maximum, 1,310 mg/l Jan. 13-13, 1968; minimum, 84 mg/l June 11, 1970.
Specific conductance: Maximum daily, 2,740 micromhos Jan. 13, 1968; minimum daily, 312 micromhos June 11, 1970.
Water temperatures: Maximum, 32.0°C July 22, 1968; minimum, freezing point on Dec. 29, 1969, Jan. 8, 22, 1970.

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service, Chickasha, Okla. No flow Oct. 1-Nov. 5, May 6-8, 29, June 17-20, June 24-Aug. 13, Aug. 18-28, Aug. 31-Sept. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
NOV.											
06-10	1.4	.00	940	1.28	.25	650	550	.6	1250	8.0	130
11-20	1.2	.02	880	1.20	.28	600	469	.6	1170	8.2	120
21-30	.80	.01	892	1.21	.24	630	476	.6	1190	8.2	160
DEC.											
01-10	.90	.01	912	1.24	.25	600	488	.6	1130	8.2	130
11-20	.70	.00	918	1.25	.40	600	461	.6	1150	8.2	120
21-31	.60	.01	908	1.25	.34	590	451	.6	1140	8.1	180
JAN.											
01-10	.20	.01	952	1.29	.67	600	492	.6	1160	8.0	130
11-20	.30	.00	912	1.24	.66	660	539	.6	1250	8.0	110
21-31	.40	.00	955	1.30	.52	710	546	.6	1300	8.1	120
FEB.											
01-10	.30	.00	998	1.36	.59	605	528	.6	1230	8.0	80
11-24	.60	.00	973	1.32	1.08	600	500	.6	1210	8.0	180
25-28	.60	.00	1290	1.75	1.57	820	684	.7	1560	8.1	140
MAR.											
01-10	.80	.01	1200	1.63	.87	750	653	.6	1380	8.1	90
11-20	1.5	.04	1140	1.55	.58	720	605	.6	1350	8.1	90
21-31	.60	.04	1090	1.48	.59	680	537	.6	1300	8.1	90
APR.											
01-10	.50	.04	1130	1.54	.61	720	523	.6	1330	8.0	160
11-20	.00	.11	1190	1.62	.51	760	550	.6	1390	8.0	190
21-30	.00	.15	1170	1.59	.35	760	527	.6	1370	8.0	180
MAY											
01-05	1.2	.24	1160	1.58	.38	720	558	.6	1340	8.2	150
09-10	1.2	.24	1160	1.58	.63	720	560	.6	1340	8.2	150
11-13	.90	.30	1190	1.62	.32	760	560	.6	1420	8.3	150
28...	.90	.52	1360	1.85	.37	840	592	.6	1540	8.2	190
30-31	.90	.52	1360	1.85	106	850	590	.5	1540	8.2	190
JUNE											
01-10	2.4	.11	1280	1.74	5.53	820	690	.5	1460	8.2	180
11-16	1.6	.14	1380	1.88	.56	890	710	.6	1580	8.3	200
21-23	1.8	.21	1070	1.46	1.24	670	470	.7	1290	8.3	230
AUG.											
14...	2.8	.36	288	.39	7.70	180	140	.2	396	7.7	--
15-17	1.6	.32	491	.67	.40	320	230	.3	669	7.9	80
29-30	2.4	.52	680	.92	1.29	460	280	.4	885	8.2	90
SEP.											
18-27	.80	.20	872	1.19	1.11	570	370	.5	1080	8.2	170
28-30	.40	.05	1220	1.66	.33	810	610	.6	1440	8.2	230
WTD. AVG.	1.2	.30	1140	1.55	--	724	539	.5	1340	8.1	169
TIME WTD. AVG.	.80	.07	1030	1.41	--	671	520	.6	1260	8.1	143
TOT. LOAD (TONS)	.41	.11	402	--	--	--	--	--	--	--	0

07326720 TONKAWA CREEK NEAR ANADARKO, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE (NO2) (MG/L)	DISSOLVED AMMONIA ORGANIC NITROGEN (N) (MG/L)	PHOSPHATE (PO4) (MG/L)
NOV.								
16...	.10	--	--	.40	--	.00	.67	.27
DEC.								
21...	.16	--	--	.30	--	.01	.17	.18
JAN.								
18...	.22	--	--	.00	--	.02	.27	--
FEB.								
16...	.32	--	--	.00	--	.00	.27	--
MAR.								
15...	.22	--	--	.20	--	.00	.17	--
APR.								
19...	.19	--	--	.20	--	.00	.57	--
MAY								
17...	.01	25	.00	.00	.00	.02	.08	--
JUNE								
21...	28	22	.06	.00	.00	.02	1.0	--
SEP.								
20...	.09	15	.04	.40	.01	.06	.12	--

07326720 TONKAWA CREEK NEAR ANADARKO, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1080	1040	1180	1450	1240	1270	1230	---	---	---
2	---	---	1130	1140	---	1450	1300	1290	1370	---	---	---
3	---	---	1100	1040	1180	1460	1300	1280	1370	---	---	---
4	---	---	1090	997	1260	1400	1360	1370	1430	---	---	---
5	---	---	1170	949	1200	1310	1320	1310	1430	---	---	---
6	---	1160	1140	1170	1160	1340	1340	---	1500	---	---	---
7	---	1200	1150	1270	1200	1430	1390	---	1490	---	---	---
8	---	1220	1180	1350	1190	1370	1360	---	1500	---	---	---
9	---	1210	1150	1300	1180	1330	1380	1450	1750	---	---	---
10	---	1280	1110	1370	1160	1340	1390	1500	1540	---	---	---
11	---	1160	1160	1320	1160	1340	1360	1390	1580	---	---	---
12	---	---	1170	1230	1160	1340	1380	1380	1430	---	---	---
13	---	1180	1230	1220	1160	1440	1400	1390	1410	---	---	---
14	---	1320	1180	1240	1280	1380	1420	1450	1470	---	396	---
15	---	1230	1090	1180	1190	1370	1440	1450	1720	---	565	---
16	---	1140	1080	1170	1020	1400	1440	1490	1630	---	681	---
17	---	1210	1190	1200	1160	1390	1440	1450	---	---	714	---
18	---	1160	1210	1210	1190	1370	1380	---	---	---	---	958
19	---	1170	1170	1220	1260	1340	1350	---	---	---	---	962
20	---	1180	1250	1320	1180	1310	1440	---	---	---	---	997
21	---	1180	1110	1270	1160	1290	1390	---	1360	---	---	1070
22	---	1140	1140	1260	1050	1360	1380	---	1350	---	---	1130
23	---	1270	1140	1390	1100	1300	1410	---	1280	---	---	1250
24	---	1310	1120	1360	1220	1280	1370	---	---	---	---	1230
25	---	1260	1090	1250	1480	1250	1350	---	---	---	---	1150
26	---	1280	1170	1240	1450	1280	1380	---	---	---	---	1200
27	---	1350	1170	1300	1540	1250	1360	1590	---	---	---	1180
28	---	1200	1160	1300	1620	1320	1420	1580	---	---	---	1380
29	---	1300	1170	1280	---	1370	1420	1570	---	---	946	1500
30	---	1240	1130	1350	---	1320	1430	1490	---	---	869	1570
31	---	---	1210	1350	---	1340	---	1450	---	---	---	---
MONTH	---	---	1150	1240	1220	1350	1380	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	15.0	4.0	8.0	11.5	17.0	22.0	23.5	---	---	---
2	---	---	13.0	8.0	14.5	4.5	15.0	22.5	27.0	---	---	---
3	---	---	10.0	6.0	8.0	6.0	15.0	21.0	26.0	---	---	---
4	---	---	10.0	3.0	8.0	9.5	12.5	22.0	27.5	---	---	---
5	---	---	10.0	4.5	7.0	12.5	12.0	23.5	28.5	---	---	---
6	---	13.0	11.0	3.0	1.0	11.5	14.0	---	28.5	---	---	---
7	---	14.0	9.0	3.0	1.0	11.0	15.0	---	25.0	---	---	---
8	---	13.0	12.5	4.0	4.0	12.5	17.0	---	25.0	---	---	---
9	---	13.0	11.5	4.0	5.0	13.0	20.0	19.0	28.0	---	---	---
10	---	14.0	16.0	5.0	6.0	12.0	19.0	24.0	25.0	---	---	---
11	---	10.5	8.0	4.5	6.5	15.0	19.0	20.5	27.0	---	---	---
12	---	---	10.0	3.0	7.0	11.0	20.0	19.5	26.0	---	---	---
13	---	8.0	7.0	5.0	8.0	17.0	19.0	20.0	27.0	---	---	---
14	---	6.0	6.5	6.0	8.0	16.5	18.0	---	29.5	---	22.5	---
15	---	7.5	8.0	5.0	10.5	18.0	19.0	---	30.0	---	23.5	---
16	---	9.0	9.0	5.0	12.0	16.0	18.0	---	30.5	---	29.5	---
17	---	10.0	9.0	7.0	14.0	15.0	20.5	---	---	---	29.0	---
18	---	11.5	11.0	5.5	15.0	11.5	21.0	---	---	---	---	15.0
19	---	11.5	12.0	5.0	14.0	12.0	21.5	---	---	---	---	18.0
20	---	10.0	8.0	5.5	10.5	14.0	20.0	---	---	---	---	19.0
21	---	13.0	7.5	13.0	2.5	13.5	22.0	---	25.0	---	---	19.0
22	---	7.0	11.0	7.0	2.5	13.5	21.0	---	29.5	---	---	18.0
23	---	5.0	6.5	9.0	7.5	13.5	17.0	---	30.0	---	---	15.0
24	---	5.0	6.0	9.0	9.0	13.5	21.5	---	---	---	---	14.0
25	---	8.0	5.0	9.5	15.0	13.5	22.5	---	---	---	---	20.0
26	---	12.0	5.0	9.0	13.5	15.5	24.0	---	---	---	---	26.0
27	---	13.0	5.5	8.0	12.0	15.5	23.0	---	---	---	---	26.0
28	---	10.0	5.0	8.5	9.0	16.0	17.5	26.5	---	---	---	28.0
29	---	14.0	7.0	13.0	---	18.0	16.0	---	---	---	24.0	25.0
30	---	16.5	8.0	10.0	---	18.5	19.5	24.0	---	---	28.0	28.0
31	---	---	7.5	8.0	---	18.5	---	23.5	---	---	---	---
MONTH	---	10.5	9.0	6.5	8.5	13.5	18.5	---	---	---	---	---

07327320 WEST SALT CREEK NEAR CHICKASHA, OKLA.

LOCATION.--Lat 35°09', long 97°57', in NW1/4 sec.28, T.8 N., R.7 W., Grady County, at gaging station at bridge on county road, approximately 6.0 mi (9.6 km) north of Chickasha.

DRAINAGE AREA.--22.0 sq mi (57.0 km²)

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year (discontinued).
Water temperatures: October 1967 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
05-14	.40	11	68	24	45	8.0	158	0	180	28	.4
17-18	.10	11	98	42	97	9.0	290	2	260	73	.4
NOV.											
07-08	.10	22	94	59	120	11	368	4	300	95	.4
13-20	.11	25	100	70	140	12	400	8	360	110	.4
21-30	.10	25	130	67	160	12	454	10	390	120	.5
DEC.											
01-06	.10	40	100	73	170	9.5	396	10	390	130	.4
08-10	.10	40	100	73	170	9.5	396	10	390	130	.4
11-20	.10	40	98	75	170	7.5	412	0	380	130	.4
21-31	.14	34	100	74	180	5.9	394	0	400	140	.3
JAN.											
01-02	.20	11	73	71	180	5.6	298	0	410	140	.3
03...	.10	18	56	24	60	11	180	4	160	51	.3
04-05	.45	15	64	73	170	7.1	260	2	440	110	.4
06-15	.15	14	83	42	100	7.6	260	4	270	79	.3
16-31	.10	19	86	60	150	6.2	292	2	360	130	.4
FEB.											
01-07	.10	11	48	73	200	5.2	182	8	440	150	.2
08-17	.10	22	78	79	220	5.2	280	8	480	170	.3
18-19	.10	10	93	42	96	9.1	242	10	300	67	.2
21-28	.68	10	93	42	96	9.1	242	10	300	67	.2
MAR.											
01-03	.10	13	73	60	140	8.0	224	4	380	100	.3
05-14	.10	16	94	70	180	7.6	316	6	420	150	.3
16-30	.10	29	130	78	210	5.3	474	0	460	180	.3
APR.											
06-09	.10	20	90	84	240	6.0	360	0	480	210	.4
10-13	.10	23	110	83	250	7.2	420	0	480	220	.4
15-20	.10	23	110	83	250	7.2	422	0	480	220	.4
21-30	.76	7.2	63	33	91	10	196	0	240	65	.2
MAY											
01-05	.18	8.4	61	59	180	9.2	284	12	300	160	.3
09-11	.10	8.4	61	59	180	9.2	284	12	300	160	.3
26...	14	--	18	4.9	5.7	7.1	60	0	25	4.0	.2
27...	64	9.7	27	9.7	20	8.5	78	0	72	14	.2
28-31	6.3	14	54	22	50	9.3	190	0	130	37	.2
JUNE											
01-02	74	11	50	17	33	7.9	110	0	140	22	.3
03...	361	12	19	4.9	7.4	7.0	54	0	34	5.0	.3
04-07	9.3	12	58	19	47	6.8	162	0	130	36	.3
08...	167	10	27	7.8	12	6.4	76	0	52	8.5	.2
09-11	26	9.3	28	7.3	13	8.0	76	0	51	10	.3
12-15	4.0	14	56	19	40	7.6	156	0	130	30	.3
16-20	.32	20	98	36	95	7.9	280	0	230	79	.4
21...	151	14	29	7.8	13	6.6	72	0	56	10	.3
22-30	1.6	20	94	34	90	7.6	268	0	220	77	.4
JULY											
01-05	.12	16	110	57	180	8.2	350	0	360	140	.7
23-25	.47	8.0	79	36	100	9.2	266	0	220	79	.6
28...	.40	8.0	79	36	100	9.2	266	0	220	79	.6
AUG.											
08-09	74	12	48	21	50	8.7	176	0	110	39	.3
14...	2.1	8.8	19	8.3	16	7.0	66	0	44	18	.3
15...	5.0	8.2	74	28	47	11	202	0	200	28	.4
16-19	.70	7.4	81	38	77	10	262	0	240	48	.4
SEP.											
05...	.10	8.0	72	45	100	11	262	8	250	76	.4
07...	.70	8.0	72	45	100	11	262	8	250	76	.4
08-09	.40	11	74	32	62	11	208	6	220	36	.6
13...	.20	11	74	32	62	11	208	6	220	36	.6
18-20	.47	11	74	32	62	11	--	6	220	36	.6
24-29	7.7	10	19	7.3	12	7.3	66	0	42	9.0	.5
WTD. AVG.	--	12	34	12	24	7.4	99	0	80	18	.3
TIME WTD. AVG.	5.4	19	84	53	134	8.0	292	3	316	107	.4
TOT. LOAD (TONS)	--	41	122	43	87	27	352	0	284	65	1.0

07327320 WEST SALT CREEK NEAR CHICKASHA, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,490 mg/l Apr. 10-13-15-20; **minimum, 110 mg/l May 26.**
Hardness: Maximum, 640 mg/l Mar. 16-30; minimum, 64 mg/l May 26.
Specific conductance: Maximum daily, 2,150 micromhos Apr. 17; minimum daily, 170 micromhos May 26.
Water temperatures: Maximum, 28.5°C July 25; minimum, 3.5°C Jan. 18, Feb. 22.

Period of record.--Dissolved solids: Maximum, 1,990 mg/l June 1-13, 1969; **minimum, 75 mg/l Oct. 7, 1967.**
Hardness: Maximum, 985 mg/l June 1-13, 1969; minimum, 40 mg/l Oct. 7, 1967.
Specific conductance: Maximum daily, 3,040 micromhos Oct. 31, 1967; minimum daily, 122 micromhos Oct. 7, 1967.
Water temperatures: Maximum, 33.0°C July 1-2, 1969; minimum, freezing point on several days during January to April, 1968.

REMARKS: No flow Oct. 1-4, 15-16, 19, Nov. 9-12, Dec. 7, Feb. 20, Mar. 4, 15, Apr. 1-5, 14, May 6-8, 12-25, July 6-22,26-27, July 29-Aug. 7, Aug. 10-13, Aug. 20-Sept. 4, Sept. 6, 9-12, 14-17, 21-23, 30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.											
05-14	3.3	.40	452	.61	.49	268	142	1.2	703	8.5	400
17-18	1.0	.05	714	.97	.19	410	169	2.1	1140	8.4	600
NOV.											
07-08	.80	.20	890	1.21	.24	480	171	2.4	1370	8.4	780
13-20	1.9	.26	1060	1.44	.31	550	209	2.6	1520	8.5	900
21-30	.90	.36	1160	1.58	.31	590	201	2.8	1680	8.4	1000
DEC.											
01-06	1.9	.00	1130	1.54	.30	550	208	3.2	1650	8.5	100
08-10	1.9	.00	1130	1.54	.30	550	210	3.2	1650	8.5	100
11-20	1.9	.25	1120	1.52	.30	560	222	3.1	1640	8.3	110
21-31	1.8	.12	1150	1.56	.43	560	237	3.3	1690	8.3	110
JAN.											
01-02	.80	.05	1090	1.48	.59	480	236	3.6	1620	8.3	1100
03...	5.5	1.1	492	.67	.13	240	86	1.7	770	8.4	480
04-05	.50	.07	1070	1.46	1.30	460	243	3.4	1550	8.4	1300
06-15	1.2	.17	758	1.03	.31	380	160	2.2	1140	8.4	640
16-31	1.1	.09	1010	1.37	.41	460	217	3.0	1510	8.4	860
FEB.											
01-07	.50	.00	1130	1.54	.30	420	257	4.2	1620	8.6	1400
08-17	1.4	.03	1310	1.78	.35	520	277	4.2	1820	8.5	1500
18-19	2.8	.28	827	1.12	22.3	400	185	2.1	1150	8.5	590
21-28	2.8	.28	827	1.12	1.52	400	200	2.1	1150	8.5	590
MAR.											
01-03	.90	.02	920	1.25	.25	430	240	2.9	1340	8.4	360
05-14	3.3	.34	1120	1.52	.30	520	250	3.4	1670	8.4	540
16-30	1.7	.55	1340	1.82	.36	640	251	3.6	1960	8.3	1400
APR.											
06-09	1.7	.19	1370	1.86	.40	570	275	4.4	1970	8.3	2000
10-13	4.6	.79	1490	2.03	.40	610	270	4.4	2100	8.3	2200
15-20	4.6	.79	1490	2.03	.40	610	264	4.4	2100	8.3	2200
21-30	4.9	1.0	662	.90	1.36	3000	139	2.3	978	8.3	340
MAY											
01-05	1.8	.14	944	1.28	.46	400	147	3.9	1480	8.5	1000
09-11	1.8	.14	944	1.28	.25	400	150	3.9	1480	8.5	1000
26...	3.2	.79	110	.15	4.16	64	15	.3	170	7.7	--
27...	3.7	1.0	222	.30	38.4	110	46	.8	354	7.8	--
28-31	4.0	.96	430	.58	7.31	220	64	1.4	654	8.3	180
JUNE											
01-02	4.8	.65	382	.52	76.3	190	100	1.0	541	8.2	290
03...	3.2	.62	132	.18	129	68	24	.4	189	7.6	130
04-07	3.7	.44	439	.60	11.0	230	97	1.4	656	8.3	370
08...	3.6	.63	192	.26	86.6	100	38	.5	283	7.9	140
09-11	4.6	.53	188	.26	13.2	100	38	.6	286	8.0	140
12-15	3.7	.42	429	.58	4.63	220	92	1.2	610	8.0	280
16-20	2.1	.30	762	1.04	.66	390	160	2.1	1120	8.3	580
21...	4.1	.58	197	.27	80.3	100	41	.6	288	7.9	130
22-30	2.7	.35	754	1.03	3.26	380	160	2.0	1080	8.2	510
JULY											
01-05	1.5	.17	1080	1.47	.35	520	230	3.1	1600	8.3	1200
23-25	2.2	.50	697	.95	.88	350	130	2.3	1080	8.2	600
28...	2.2	.50	697	.95	.75	350	130	2.3	1080	8.2	600
AUG.											
08-09	3.1	1.1	391	.53	78.1	210	66	1.5	622	8.2	340
14...	1.8	.72	154	.21	.87	82	28	.8	256	7.6	110
15...	3.5	.34	516	.70	6.97	300	130	1.2	775	8.3	320
16-19	2.1	.33	666	.91	1.26	360	150	1.8	976	8.3	550
SEP.											
05...	2.2	.26	714	.97	.19	360	130	2.3	1100	8.4	830
07...	2.2	.26	714	.97	1.35	360	130	2.3	1100	8.4	830
08-09	2.2	.32	572	.78	.62	320	140	1.5	855	8.4	560
13...	2.2	.32	572	.78	.31	320	140	1.5	855	8.4	560
18-20	2.2	--	--	--	--	320	--	1.5	855	8.4	--
24-29	1.9	--	152	.21	3.16	78	24	.6	220	7.8	--
WTD. AVG.	3.8	.68	262	.36	--	150	53	.8	389	7.9	213
TIME WTD. AVG.	2.3	.38	912	1.24	--	539	187	2.7	1330	8.3	760
TOT. LOAD (TONS)	10	2.3	934	--	--	--	--	--	--	--	1

07327320 WEST SALT CREEK NEAR CHICKASHA, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE (NO2) (MG/L)	DISSOLVED AMMONIA ORGANIC NITROGEN (N) (MG/L)	PHOSPHATE (PO4) (MG/L)
OCT.								
19...	.05	--	--	.30	--	.04	1.3	.29
NOV.								
16...	.08	--	--	.80	--	.00	.84	.65
JAN.								
18...	.12	--	--	.10	--	.00	.88	--
FEB.								
16...	.05	--	--	.00	--	.00	.76	--
MAR.								
15...	.05	--	--	.80	--	.01	.37	--
APR.								
19...	.05	--	--	.30	--	.00	.54	--
MAY								
17...	.01	160	.00	.00	.00	.01	.90	--
JUNE								
21...	85	4.0	.09	.40	.02	.09	.80	--
AUG.								
23...	.01	55	.00	.00	.00	.01	.85	--

07327320 WEST SALT CREEK NEAR CHICKASHA, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1550	1670	---	1120	---	---	---	1350	---	---
2	---	---	1740	1570	1580	1240	---	---	582	1440	---	---
3	---	---	---	770	---	1180	---	---	---	1700	---	---
4	---	---	1710	1590	1700	1360	---	---	424	---	---	---
5	---	---	1700	1530	---	1460	---	---	---	---	---	1140
6	665	---	1650	1080	1650	1640	1940	---	---	---	---	---
7	802	---	---	---	---	1440	---	---	858	---	---	1210
8	---	1840	1740	945	1860	1450	2130	---	263	---	---	---
9	565	---	1670	1100	2110	1630	2010	---	336	---	678	---
10	---	---	---	1130	1820	1500	---	1310	---	---	---	---
11	658	---	---	1200	1820	1620	2030	1400	230	---	---	---
12	663	---	1640	1100	1770	1700	---	---	396	---	---	---
13	717	---	1720	1200	1840	1730	2120	---	490	---	256	---
14	762	---	1690	1200	---	---	---	---	841	---	775	---
15	---	---	---	1240	1700	1910	---	---	686	---	---	---
16	---	---	---	1330	---	---	---	---	960	---	---	---
17	---	1460	---	1440	1790	---	2150	---	---	---	---	---
18	---	---	---	1340	1460	---	---	---	1170	---	921	803
19	---	1600	1710	1340	---	---	---	---	---	---	---	---
20	---	1570	---	1440	---	---	2040	---	1210	---	---	---
21	---	1650	1760	1490	---	---	---	---	358	---	---	---
22	---	---	1680	1570	1040	---	---	---	---	---	---	---
23	---	1640	---	1560	1060	---	---	---	---	1000	---	---
24	---	1670	---	---	1130	1940	---	---	894	1180	---	220
25	---	---	1620	1630	1150	1930	---	---	953	1110	---	---
26	---	1750	1770	---	1130	---	---	170	---	---	---	---
27	---	---	1720	---	---	---	978	354	1170	809	---	---
28	---	1750	1780	1570	1210	2000	---	---	---	---	---	---
29	---	---	1770	---	---	1990	---	531	1300	---	---	---
30	---	---	1810	---	---	2020	---	---	---	---	---	---
31	---	---	---	1800	---	---	---	767	---	---	---	---
MONTH	---	---	---	1350	---	---	---	---	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	15.5	9.5	---	11.0	13.0	---	---	22.5	---	---
2	---	---	14.5	10.0	4.5	4.5	---	---	26.5	---	---	---
3	---	---	---	8.5	---	8.5	15.5	---	---	22.5	---	---
4	---	---	14.0	10.0	6.0	11.5	13.0	---	26.5	---	---	---
5	---	---	13.5	6.5	---	16.0	---	---	---	22.5	---	22.5
6	24.0	---	10.5	5.5	7.0	11.0	10.0	---	---	---	---	---
7	21.0	---	---	---	---	10.0	---	---	26.5	---	---	22.5
8	---	16.5	16.0	10.0	5.5	14.0	21.0	---	24.0	---	---	---
9	15.0	---	14.5	7.0	4.5	13.0	21.0	---	25.0	---	22.5	---
10	---	---	---	10.0	11.0	16.5	---	23.5	---	---	---	---
11	18.5	---	---	13.0	9.0	18.5	23.5	21.0	22.5	---	---	---
12	18.5	---	10.0	7.0	10.5	15.5	---	---	22.5	---	---	---
13	17.0	---	9.0	6.0	10.0	19.5	18.0	---	22.5	---	---	---
14	21.0	---	9.0	5.5	---	---	19.5	---	22.5	---	22.5	---
15	---	---	---	5.5	13.5	18.5	---	---	22.5	---	22.5	---
16	---	---	---	6.0	---	---	---	---	22.5	---	---	---
17	---	13.0	---	11.0	13.0	---	7.0	---	---	---	---	---
18	---	---	---	3.5	15.5	---	---	---	22.5	---	22.5	13.5
19	---	13.5	9.0	4.5	---	---	---	---	---	---	---	---
20	---	13.5	---	9.0	---	---	7.5	---	22.5	---	---	---
21	---	16.5	11.0	14.5	---	---	---	---	22.5	---	---	---
22	---	---	13.0	18.5	3.5	---	---	---	---	---	---	---
23	---	11.0	---	9.5	6.5	---	---	---	---	25.5	---	---
24	---	6.5	---	---	10.0	13.0	---	---	22.5	25.0	---	17.0
25	---	---	12.0	10.0	16.0	15.5	---	---	22.5	28.5	---	---
26	---	16.0	10.0	---	13.5	---	---	19.0	---	---	---	---
27	---	---	7.0	---	---	---	15.0	18.0	22.5	---	---	---
28	---	19.0	9.5	13.0	13.0	18.5	---	---	---	22.5	---	---
29	---	---	10.0	---	---	18.5	---	20.0	22.5	---	---	---
30	---	---	13.0	---	---	21.0	---	---	---	---	---	---
31	---	---	---	7.0	---	---	---	25.5	---	---	---	---
MONTH	---	---	---	9.0	---	---	---	---	---	---	---	---

07327420 WEST BITTER CREEK NEAR TABLER, OKLA.

LOCATION.--Lat 35°03', long 97°51', in SW1/4 sec.29, T.7 N., R.6 W., Grady County, at gaging station on U.S. Highway 62, 4.0 mi (6.4 km) east of Chickasha, and 1.8 mi (2.9 km) west of Tabler.

DRAINAGE AREA.--60.8 sq mi (157.5 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1953 and 1960 (partial-record station), October 1964 to current year (discontinued).
Water temperatures: October 1964 to September 1967, October 1968 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
01-04	.28	14	46	31	19	4.2	244	2	67	9.0	.3
05-10	21	9.9	29	9.2	6.4	2.9	108	0	30	3.0	.3
11-14	.85	11	39	16	13	2.9	160	0	51	6.5	.3
15-23	.50	12	51	25	19	3.4	220	8	63	9.0	.2
24-31	.50	15	61	33	21	4.5	288	12	67	11	.2
NOV.											
01-10	.41	17	39	47	29	5.0	276	8	92	13	.2
11-15	1.3	16	50	51	32	5.8	276	6	140	17	.2
16-19	.85	22	70	57	43	6.2	238	2	260	22	.2
20-30	.60	25	80	61	42	6.6	336	0	220	20	.2
DEC.											
01-10	.86	22	58	59	41	6.2	264	4	220	19	.2
11-20	1.0	30	66	62	46	5.6	254	0	280	21	.2
21-31	1.1	24	70	62	46	4.9	240	0	290	21	.2
JAN.											
01-10	1.0	22	62	62	52	4.7	210	0	310	24	.2
11-20	1.1	22	65	58	46	3.9	228	0	260	22	.2
21-31	.78	20	58	54	41	3.6	286	0	190	18	.2
FEB.											
01-10	.85	16	63	61	48	2.7	268	0	260	24	.2
11-18	.80	17	77	60	50	2.7	278	0	260	23	.3
19-20	5.0	20	160	66	66	2.6	276	0	520	31	.2
21-28	8.5	11	68	32	26	5.2	240	0	140	14	.2
MAR.											
01-10	1.3	14	54	50	33	3.9	242	2	180	17	.2
11-20	.85	12	67	61	43	4.1	334	0	200	20	.3
21-31	.84	9.4	56	66	51	4.2	268	0	250	24	.2
APR.											
01-10	.61	6.5	47	67	52	4.5	268	0	250	24	.2
11-20	.43	4.8	70	70	60	5.8	320	0	290	27	.3
21-30	2.0	.0	98	66	61	6.4	324	0	340	28	.3
MAY											
01-15	.47	9.2	58	48	37	5.0	288	4	160	15	.3
16-20	.10	8.3	59	50	41	5.2	338	0	140	17	.3
23-24	.10	8.3	59	50	41	5.2	338	0	140	17	.3
26...	.60	8.3	59	50	41	5.2	338	0	140	17	.3
27...	7.0	--	37	18	19	7.4	114	0	91	9.6	.3
28-31	2.3	8.4	83	44	45	7.0	236	0	260	19	.3
JUNE											
01-02	58	11	37	14	12	5.0	136	0	60	5.5	.4
03...	491	10	22	6.3	4.3	4.6	84	0	22	2.0	.2
04-05	23	9.2	37	9.7	11	5.3	118	0	45	9.0	.9
06-07	3.3	9.9	62	25	21	6.3	216	0	100	12	.3
08...	516	7.9	20	6.3	4.4	8.5	78	0	18	2.0	.3
09-12	32	12	46	14	14	5.6	148	0	72	9.0	.5
13-20	3.4	12	75	30	29	6.6	220	2	160	16	.3
21...	28	11	31	7.8	6.1	4.7	104	0	33	3.5	1.0
22-25	.72	12	62	31	25	6.4	238	0	120	14	.5
26-30	.28	11	80	44	42	7.6	264	0	210	22	.5
JULY											
01...	3.0	7.6	43	45	39	6.5	216	0	170	19	.2
02-04	10	11	44	19	16	4.6	164	0	72	9.2	.3
05-07	.27	12	56	28	24	5.6	240	0	92	12	.3
28-31	.65	8.2	25	13	10	5.3	120	0	32	4.0	.3
AUG.											
14-15	9.6	8.5	28	16	9.8	7.0	154	0	26	4.3	.2
16-18	.40	9.4	38	25	18	6.5	210	0	45	11	.3
SEP.											
18...	56	--	15	4.4	2.4	6.5	66	0	8.7	2.0	--
19-23	1.3	8.3	36	23	18	5.8	136	0	98	9.1	.2
24-25	87	17	22	6.8	4.2	4.9	84	0	19	2.1	.5
26-27	2.4	8.8	33	16	12	5.1	134	0	50	7.0	.3
28-30	.43	11	31	30	21	5.5	192	0	65	16	.3
WTD. AVG.	--	11	32	14	11	4.8	119	0	56	5.6	.3
TIME WTD. AVG.	6.9	14	59	47	36	4.9	249	1	184	17	.3
TOT. LOAD (TONS)	--	58	179	78	62	26	665	1	313	31	1.8

07327420 WEST BITTER CREEK NEAR TABLER, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,090 mg/l Feb. 19-20; minimum, 83 mg/l Sept. 18.
Hardness: Maximum, 660 mg/l Feb. 19-20; minimum, 56 mg/l Sept. 18.
Specific conductance: Maximum daily, 1,550 micromhos Feb. 19; minimum daily, 125 micromhos Sept. 18.
Water temperatures: Maximum, 32.0°C July 2; minimum, 1.0°C Feb. 8, 12, 15.

Period of record.--Dissolved solids: Maximum, 1,200 mg/l Mar. 20-23, 1967; minimum, 83 mg/l Sept. 18, 1971.
Hardness: Maximum, 730 mg/l Mar. 20-23, 1967; minimum, 56 mg/l Sept. 18, 1971.
Specific conductance (1964-67, 1969-71): Maximum daily, 1,630 micromhos Mar. 20, 1967; minimum daily, 125 micromhos Sept. 18, 1971.
Water temperatures (1964-67, 1969-71): Maximum, 32.0°C July 2, 1971; minimum, freezing point on Dec. 28, 1966.

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service, Chickasha, Oklahoma. No flow May 21-22, 25, July 8-27, Aug. 1-13, Aug. 19-Sept. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.											
01-04	1.7	.06	314	.43	.17	242	39	.5	518	8.4	200
05-10	3.5	.20	147	.20	8.33	110	21	.3	249	8.1	100
11-14	1.8	.20	220	.30	.50	166	35	.4	365	8.3	200
15-23	1.8	.10	300	.41	.40	232	38	.5	495	8.5	200
24-31	.80	.13	375	.51	.51	288	0	.5	597	8.5	380
NOV.											
01-10	1.0	.00	376	.51	1.02	290	50	.7	622	8.5	320
11-15	.90	.01	456	.62	1.60	330	94	.8	720	8.4	390
16-19	.70	.01	628	.85	1.44	410	211	.9	893	8.4	530
20-30	1.1	.00	612	.83	.99	450	174	.9	931	8.3	520
DEC.											
01-10	1.1	.02	582	.79	1.35	390	167	.9	851	8.4	550
11-20	.30	.01	671	.91	1.81	420	212	1.0	927	8.3	740
21-31	.50	.04	683	.93	2.03	430	233	1.0	942	8.3	640
JAN.											
01-10	.80	.00	695	.95	1.88	410	238	1.1	978	8.3	590
11-20	1.2	.00	651	.89	1.93	400	213	1.0	932	8.3	470
21-31	.90	.00	542	.74	1.14	370	134	.9	842	8.3	390
FEB.											
01-10	.90	.00	634	.86	1.46	410	190	1.0	918	8.3	460
11-18	.70	.00	688	.94	1.58	440	212	1.0	983	8.3	490
19-20	2.0	.00	1090	1.48	2.50	660	434	1.1	1360	8.2	790
21-28	3.0	.22	427	.58	9.80	300	110	.7	664	8.2	290
MAR.											
01-10	1.4	.01	505	.69	1.77	340	138	.8	753	8.4	440
11-20	1.1	.05	586	.80	1.34	420	146	.9	890	8.2	350
21-31	1.0	.01	622	.85	1.81	410	190	1.1	917	8.3	440
APR.											
01-10	.10	.10	618	.84	1.02	390	170	1.1	905	8.3	710
11-20	.80	.02	723	.98	.84	460	197	1.2	1050	8.3	620
21-30	.50	.00	785	1.07	4.23	520	254	1.2	1100	8.3	670
MAY											
01-15	1.0	.09	507	.69	.64	340	97	.9	763	8.4	520
16-20	1.1	.15	519	.71	.14	350	73	.9	798	8.3	510
23-24	1.1	.15	519	.71	.14	350	73	.9	798	8.3	510
26...	1.1	.15	519	.71	.84	350	73	.9	798	8.3	510
27...	5.0	.57	295	.40	5.50	160	66	.6	422	8.1	--
28-31	1.1	.15	637	.87	4.00	390	196	1.0	884	8.3	640
JUNE											
01-02	3.7	.04	237	.32	37.1	150	38	.4	354	8.2	340
03...	2.1	.20	122	.17	162	80	11	.2	182	7.9	60
04-05	4.6	.22	206	.28	12.8	130	33	.4	319	8.1	210
06-07	8.6	.16	364	.50	3.24	260	83	.6	564	8.3	320
08...	2.7	.16	115	.16	160	76	12	.2	179	7.9	60
09-12	3.6	.20	251	.34	21.7	180	59	.5	406	8.2	240
13-20	1.8	.12	466	.63	4.28	310	130	.7	692	8.4	460
21...	2.6	.28	154	.21	11.6	110	25	.3	255	8.0	--
22-25	1.6	.11	392	.53	.76	280	85	.6	621	8.3	370
26-30	2.6	.08	580	.79	.44	380	160	.9	850	8.3	580
JULY											
01...	1.4	.01	454	.62	3.68	290	110	1.0	733	8.3	450
02-04	2.9	.11	264	.36	7.13	190	55	.5	422	8.3	200
05-07	2.9	.21	358	.49	.26	260	63	.7	564	8.2	360
28-31	4.1	.28	164	.22	.29	120	22	.4	276	7.7	180
AUG.											
14-15	2.8	.54	180	.24	4.66	140	14	.4	310	8.2	100
16-18	4.6	.16	271	.37	.29	200	26	.6	447	8.2	230
SEP.											
18...	1.6	--	83	.11	12.5	56	2	.1	125	7.6	--
19-23	2.7	.23	278	.38	.98	180	68	.6	436	7.7	280
24-25	2.2	.40	121	.16	28.4	82	13	.2	188	7.5	70
26-27	3.2	.16	213	.29	1.38	150	40	.4	343	7.6	180
28-30	2.5	.14	290	.39	.34	200	42	.6	473	7.8	23
WTD. AVG.	2.5	.19	207	.28	--	138	40	.3	314	8.0	162
TIME WTD. AVG.	1.4	.08	511	.70	--	342	134	.8	759	8.3	443
TOT. LOAD (TONS)	14	1.0	1150	--	--	--	--	--	--	--	1

07327420 WEST BITTER CREEK NEAR TABLER, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE (NO2) (MG/L)	DISSOLVED AMMONIA ORGANIC NITROGEN (N) (MG/L)	PHOSPHATE (PO4) (MG/L)
OCT.								
19...	.59	--	--	.50	--	.00	2.6	.16
NOV.								
16...	1.0	--	--	.30	--	.00	.35	.09
DEC.								
21...	1.1	--	--	.10	--	.01	.39	.01
JAN.								
18...	1.1	--	--	.00	--	.04	.27	--
FEB.								
16...	.75	--	--	.00	--	.03	.39	--
MAR.								
15...	.63	--	--	.10	--	.00	.58	--
APR.								
19...	.45	--	--	.00	--	.09	1.2	--
MAY								
17...	.11	22	.00	.00	.00	.02	.10	--
JUNE								
21...	16	7.0	.02	.10	.02	.09	.58	--
AUG.								
17...	.49	28	.00	.00	.00	.00	.32	--
SEP.								
20...	.87	10	.25	1.1	.03	.10	.18	--

07327420 WEST BITTER CREEK NEAR TABLER, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	600	965	897	803	742	842	822	309	733	---	---
2	516	595	870	840	796	765	957	820	399	348	---	---
3	624	571	848	855	820	775	932	804	---	426	---	---
4	516	625	770	890	826	685	917	840	290	464	---	---
5	269	659	823	---	861	768	863	799	349	514	---	---
6	233	666	887	960	920	783	927	773	539	500	---	---
7	261	---	981	1120	1130	838	873	775	588	---	---	---
8	243	636	881	1000	938	883	838	---	257	---	---	---
9	215	650	815	1010	1050	851	888	742	322	---	---	---
10	255	640	852	977	1040	---	973	706	420	---	---	---
11	303	780	896	923	939	885	886	782	470	---	---	---
12	352	754	948	816	1040	1010	994	714	423	---	---	---
13	386	729	981	859	991	984	1100	747	530	---	---	---
14	412	692	---	920	1050	1000	994	762	650	---	---	---
15	447	733	926	935	991	921	994	775	690	---	310	---
16	450	874	905	869	989	965	1050	785	716	---	404	---
17	494	920	1010	964	961	947	1150	789	749	---	440	---
18	509	915	895	925	900	---	1060	808	789	---	455	125
19	515	952	1010	908	1550	938	1020	823	770	---	---	450
20	564	1020	955	918	1250	905	1050	---	745	---	---	442
21	515	903	978	838	---	887	1050	---	253	---	---	426
22	---	1050	884	889	476	935	1100	---	505	---	---	431
23	469	924	893	856	531	860	1120	777	621	---	---	436
24	570	954	973	819	598	965	---	800	650	---	---	138
25	603	---	930	859	656	---	1140	---	689	---	---	230
26	599	965	1070	783	704	970	1080	817	851	---	---	312
27	597	988	942	---	---	---	1270	410	832	---	---	364
28	806	1050	---	---	709	968	1270	888	867	338	---	439
29	604	880	886	858	---	992	1080	---	916	215	---	451
30	---	880	1030	908	---	930	1000	796	810	283	---	510
31	638	---	1040	787	---	893	---	---	---	229	---	---
MONTH	457	807	926	891	905	891	1020	---	586	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	10.0	15.0	15.0	5.0	8.0	14.0	22.0	25.0	29.0	---	---
2	25.0	12.0	14.0	16.0	3.0	2.0	16.0	22.0	28.0	32.0	---	---
3	24.0	9.0	13.0	14.0	4.0	4.0	16.0	20.0	---	29.0	---	---
4	25.0	10.0	11.0	---	6.0	7.0	12.0	22.0	25.0	30.0	---	---
5	22.0	11.0	10.0	---	6.0	10.0	11.0	23.0	26.0	31.0	---	---
6	25.0	14.0	9.0	3.0	3.0	9.0	15.0	22.0	28.0	30.0	---	---
7	24.0	---	8.0	2.0	2.0	9.0	14.0	23.0	30.0	---	---	---
8	11.0	14.0	8.0	2.0	1.0	10.0	17.0	---	24.0	---	---	---
9	13.0	8.0	9.0	4.0	3.0	10.0	18.0	20.0	20.5	---	---	---
10	14.0	8.0	4.0	4.0	4.0	---	19.0	25.0	25.0	---	---	---
11	12.0	11.0	8.0	3.0	5.0	10.0	21.0	20.0	26.0	---	---	---
12	15.5	10.5	11.5	3.0	1.0	16.0	22.0	22.0	29.0	---	---	---
13	16.0	8.0	11.0	4.0	3.0	16.0	18.0	22.0	28.0	---	---	---
14	18.0	6.5	---	4.0	3.0	16.0	20.0	22.0	30.0	---	---	---
15	13.0	6.0	7.5	4.0	1.0	14.0	21.0	23.0	31.0	---	21.0	---
16	13.0	8.0	7.5	4.0	11.0	15.0	19.0	25.0	31.0	---	30.0	---
17	14.0	9.0	6.0	5.0	13.0	15.0	22.0	23.0	31.0	---	29.5	---
18	15.0	11.0	10.0	4.0	15.0	---	21.0	23.0	30.0	---	29.5	10.5
19	28.0	11.0	11.0	4.0	16.0	10.0	22.0	26.0	30.0	---	---	13.5
20	27.0	10.0	8.0	5.0	11.0	10.0	21.0	23.0	28.0	---	---	19.5
21	18.5	8.0	8.0	7.0	---	16.0	22.0	23.0	22.0	---	---	15.5
22	---	8.0	9.5	8.0	3.0	13.0	23.0	---	---	---	---	16.0
23	19.0	4.0	16.0	7.0	7.0	13.0	19.0	25.0	30.0	---	---	17.0
24	18.0	5.0	16.0	9.0	10.0	8.0	---	22.0	30.0	---	---	18.0
25	21.0	---	17.0	9.0	10.0	12.0	20.0	24.0	29.0	---	---	21.5
26	21.0	12.0	16.0	8.0	10.0	14.0	25.0	26.0	28.0	---	---	25.5
27	13.0	9.0	15.0	---	---	---	23.0	24.0	30.0	---	---	25.5
28	13.0	9.0	16.0	---	8.0	16.0	24.0	25.0	26.0	26.0	---	26.5
29	14.0	11.0	16.0	15.0	---	15.0	15.0	---	---	21.0	---	29.0
30	---	15.0	19.0	16.0	---	16.0	22.0	23.0	30.0	28.0	---	26.0
31	14.0	---	20.0	6.0	---	18.0	---	---	---	28.0	---	---
MONTH	18.0	9.5	11.5	6.5	6.5	12.0	19.0	23.0	28.0	---	---	---

07327432 SPRING CREEK NEAR BLANCHARD, OKLA.

LOCATION.--Lat 35°06'50", long 97°44'34", in NE1/4 sec.5, T.7 N., R.5 W., Grady County, at gaging station at bridge on county road, approximately 0.8 mi (1.3 km) northwest of Middleberg.

DRAINAGE AREA.--1.19 sq mi (3.1 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.											
08...	12	7.7	13	2.1	16	3.5	44	0	8.3	21	.3
JUNE											
01...	.08	14	19	8.3	11	8.7	98	0	10	18	--
03...	.27	--	13	4.9	4.2	4.1	32	0	6.0	2.0	.3
05...	5.1	21	13	4.9	4.3	4.3	62	0	6.7	1.6	--
07...	10	12	18	7.6	4.7	3.5	90	0	8.7	1.3	.4
08...	.18	11	14	5.8	4.6	5.0	74	0	5.6	2.8	--
12...	3.4	8.7	22	6.3	5.6	2.6	96	0	8.0	4.6	.4
JULY											
28...	.03	5.7	10	4.4	12	3.0	62	0	14	3.0	.4
AUG.											
08...	1.0	7.6	11	3.9	11	3.2	60	0	16	3.0	.4
13...	44	7.6	13	4.4	7.0	4.2	60	0	10	2.5	.5
14...	2.0	--	9.6	2.9	6.4	1.9	48	0	4.6	2.5	.4
14...	.06	8.7	13	3.4	12	4.7	60	0	6.0	15	.4
SEP.											
18...	.28	4.5	10	2.9	2.4	6.4	42	0	9.5	3.0	.2

07327435 SPRING CREEK NEAR TABLER, OKLA.

LOCATION.--Lat 35°05'58", long 97°45'19", Grady County, in center of sec.5, T.7 N., R.5 W., on county road, at gaging station approximately 1.2 mi (1.9 km) west-southwest of Middleberg.

DRAINAGE AREA.--2.28 sq mi (6.0 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT.											
06...	.19	12	23	13	7.2	2.7	138	0	8.0	4.0	.3
08...	6.4	14	24	14	7.2	2.2	156	0	7.0	4.5	.2
09...	.12	11	24	12	5.9	3.0	140	0	7.4	3.5	.2
13...	.05	20	49	38	19	3.4	364	0	8.8	10	.2
20...	.05	21	14	44	22	3.0	272	12	12	13	.2
23...	2.8	18	16	40	21	3.2	256	12	11	12	.2
27...	.06	20	19	42	19	3.7	264	14	11	12	.3
NOV.											
02...	.08	18	18	49	24	3.5	296	16	8.6	12	.3
12...	.07	21	20	51	25	4.1	320	12	9.2	12	.4
17...	.13	21	17	47	24	4.0	274	14	13	14	.3
24...	.07	21	23	51	25	3.3	332	18	10	12	.3
DEC.											
01...	.08	24	18	49	24	2.6	288	16	9.4	12	.3
08...	.09	20	16	50	23	2.6	292	16	15	10	.3
15...	.18	20	18	50	36	2.7	286	16	17	34	.2
22...	.12	19	15	48	21	2.4	276	18	17	12	.2
31...	.08	18	17	48	22	1.9	288	14	17	12	.2
JAN.											
05...	.08	18	17	51	26	2.8	304	14	16	14	.2
12...	.12	18	22	43	26	1.7	298	8	12	10	.2
19...	.08	18	20	48	22	1.7	294	14	14	11	.2
26...	.09	18	26	48	22	1.9	324	8	18	11	.2
FEB.											
02...	.18	19	29	49	21	1.8	328	12	13	11	.2
09...	.12	19	34	55	23	2.0	388	4	15	12	.2
MAR.											
09...	.12	19	28	51	23	1.9	362	0	12	14	.3
16...	.12	19	25	52	24	1.9	340	10	9.6	13	.3
23...	.12	20	23	52	24	1.9	338	10	11	13	.3
30...	.08	17	23	52	23	1.9	336	10	13	13	.3
APR.											
06...	.08	18	17	51	25	1.9	300	16	11	13	.3
13...	.06	18	22	53	26	2.0	336	14	9.4	13	.3
20...	.14	17	42	52	27	2.6	408	8	13	14	.3
27...	.04	19	16	52	23	2.4	310	18	9.7	13	--
MAY											
04...	.07	19	18	54	25	2.8	320	16	9.7	15	.3
11...	.06	--	49	54	27	3.3	446	4	13	16	--
18...	.12	42	24	56	26	3.2	364	10	8.8	15	.4

07327432 SPRING CREEK NEAR BLANCHARD, OKLA.

PERIOD OF RECORD.--Chemical analyses: February 1968 to current year(discontinued).

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service. Chickasha. Oklahoma.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT,											
08...	1.0	.09	110	.15	3.56	42	6	1.1	164	7.8	10
JUNE											
01...	1.7	--	145	.20	.03	82	2	.5	176	7.4	150
03...	1.5	.14	110	.15	.08	52	1	.3	115	7.1	30
03...	1.1	--	99	.13	1.36	52	1	.3	117	7.4	--
07...	1.5	.00	115	.16	3.10	76	2	.2	172	7.9	--
08...	1.6	.02	108	.15	.05	60	0	.3	138	7.2	--
12...	1.7	--	115	.16	1.06	82	3	.3	186	8.0	0
JULY											
28...	2.2	.09	89	.12	.01	44	0	.8	144	7.6	100
AUG,											
08...	2.0	.09	99	.13	.27	44	0	.7	140	7.4	100
13...	2.4	.05	93	.13	.11	50	0	.4	136	7.6	--
14...	.60	.04	62	.08	.33	56	0	.5	101	6.9	--
14...	.40	.09	103	.14	.02	46	0	.8	159	7.5	100
SEP,											
18...	1.2	.11	66	.09	.05	38	4	.2	102	7.5	150

07327435 SPRING CREEK NEAR TABLER, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year (discontinued).

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service, Chickasha, Oklahoma.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT,											
06...	1.6	--	140	.19	.07	112	0	.3	239	8.2	--
08...	1.3	.02	148	.20	2.56	116	0	.3	256	8.3	--
09...	1.5	.05	137	.19	.04	108	0	.2	238	7.9	--
13...	.10	.10	326	.44	.04	280	0	.5	564	8.3	--
20...	.80	.00	276	.38	.04	218	0	.7	471	8.6	--
23...	.20	.00	262	.36	1.98	208	0	.6	449	8.6	--
27...	.50	--	272	.37	.04	220	0	.6	466	8.6	--
NOV,											
02...	.00	.04	275	.37	.06	250	0	.7	515	8.7	120
12...	.00	.07	290	.39	.05	260	0	.7	529	8.6	120
17...	.30	.26	271	.37	.10	230	0	.7	494	8.7	130
24...	.00	.06	303	.41	.06	270	0	.7	553	8.7	140
DEC,											
01...	.10	.04	278	.38	.06	240	0	.7	504	8.5	130
08...	.40	.01	286	.39	.07	240	0	.6	497	8.7	120
15...	.10	.01	326	.44	.16	250	0	1.0	573	8.7	120
22...	.00	.02	288	.39	.09	240	0	.6	494	8.6	120
31...	.00	.00	277	.38	.06	240	0	.6	494	8.6	120
JAN,											
05...	.10	.00	302	.41	.06	250	0	.7	531	8.6	120
12...	.20	.00	254	.35	.08	230	0	.6	481	8.5	100
19...	.00	.00	289	.39	.06	250	0	.6	508	8.6	70
26...	.00	.02	285	.39	.07	260	0	.6	540	8.5	140
FEB,											
02...	.10	.00	308	.42	.15	270	0	.6	557	8.5	120
09...	.00	.01	355	.48	.11	312	0	.6	622	8.4	130
MAR,											
09...	.10	.01	308	.42	.10	280	0	.6	585	8.3	0
16...	.10	.02	300	.41	.10	280	0	.6	558	8.5	10
23...	.00	.01	304	.41	.10	270	0	.6	552	8.5	10
30...	.00	.02	314	.43	.07	270	0	.6	550	8.5	0
APR,											
06...	4.0	.00	284	.39	.06	250	0	.7	541	8.6	0
13...	.20	.04	304	.41	.05	270	0	.7	555	8.6	0
20...	1.4	.08	364	.50	.14	320	0	.7	643	8.4	0
27...	.10	.00	279	.38	.03	250	0	.6	516	8.6	0
MAY											
04...	.00	.00	312	.42	.06	260	0	.7	548	8.6	--
11...	.40	.00	408	.55	.07	350	0	.6	699	8.4	0
18...	.40	.00	361	.49	.12	290	0	.7	591	8.5	--

07327435 SPRING CREEK NEAR TABLER, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
MAY											
24...	.12	14	24	18	9.1	4.4	152	0	16	4.8	.6
27...	.30	15	40	34	17	5.0	306	0	18	10	--
JUNE											
01...	.59	8.4	18	11	5.2	3.9	108	0	6.7	3.1	.3
03...	38	12	18	8.3	3.6	3.5	98	0	7.4	2.0	.3
03...	.66	9.6	17	8.8	3.4	5.3	94	0	5.6	2.1	--
07...	5.6	16	38	27	12	4.7	242	10	7.6	8.1	.2
08...	1.0	12	17	7.8	5.0	3.1	90	0	8.0	3.0	.4
12...	7.6	13	33	24	13	3.5	220	6	10	8.0	.2
15...	.14	18	50	33	16	4.0	336	0	7.6	9.0	.3
22...	.06	16	22	42	24	3.9	284	12	11	14	.3
29...	.01	11	18	48	28	4.5	300	16	13	15	.3
JULY											
02...	.25	10	17	8.3	6.7	2.7	92	0	8.4	3.3	.6
06...	.01	29	30	20	12	3.8	204	0	7.5	4.5	.6
28...	.04	9.5	28	20	11	4.3	182	0	16	6.5	.3
AUG.											
08...	1.5	10	40	34	20	5.6	314	0	11	12	.3
13...	.90	8.2	30	22	12	4.3	208	0	10	7.0	.6
14...	2.5	10	22	16	12	4.1	164	0	8.5	6.5	.4
14...	1.1	--	20	17	10	3.8	156	0	9.0	4.4	.3
16...	.04	11	29	20	9.6	3.9	196	0	9.8	3.4	.7
17...	.05	15	35	25	14	4.4	228	10	5.5	7.0	.1
24...	.01	13	22	34	19	4.6	244	10	9.5	12	.2
SEP.											
18...	.52	5.2	11	5.8	3.0	4.7	64	0	10	1.5	.0
20...	.03	9.4	25	16	7.6	4.0	160	0	8.0	4.5	--
28...	.12	17	42	25	12	4.8	254	8	7.3	7.7	.3

07327437 SPRING CREEK TRIBUTARY NEAR MIDDLEBERG, OKLA.

LOCATION.--Lat 35°05', long 97°50', in NW1/4SE1/4 sec.7, R.5 W., T.7 N., Grady County, at gaging station 0.1 mi (0.2 km) upstream from Spring Creek.

DRAINAGE AREA.--0.76 sq mi (2.1 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT.											
08...	1.7	14	29	16	6.1	5.2	156	0	22	3.5	.3
DEC.											
15...	.01	--	32	55	18	5.6	342	12	20	11	.3
22...	.01	--	20	52	16	2.7	292	18	15	9.0	--
31...	.02	13	18	43	15	1.1	256	12	9.4	6.0	--
JAN.											
12...	.01	16	25	48	14	1.9	300	12	15	8.0	.2
26...	.01	16	28	50	14	2.2	330	8	14	7.5	.1
FEB.											
02...	.01	17	29	52	15	2.1	338	10	15	8.0	.2
MAR.											
09...	.02	13	26	52	15	1.9	326	10	12	8.6	.3
16...	.01	16	27	55	16	2.5	346	10	6.1	9.0	.3
23...	.01	17	58	52	16	2.4	474	0	11	9.0	.3
30...	.01	22	38	57	16	2.4	386	12	11	9.0	.3
APR.											
06...	.01	22	24	58	17	2.3	360	10	11	9.4	.3
MAY											
27...	.05	14	26	30	10	5.5	228	0	14	6.2	.4
JUNE											
01...	.03	15	39	32	9.2	5.4	288	2	6.7	6.0	.3
03...	.08	12	20	11	6.0	4.2	110	0	6.0	5.3	--
08...	.05	12	26	18	5.2	6.4	166	0	7.2	5.0	.3
12...	.16	13	19	9.7	3.9	4.3	104	0	5.7	4.0	.1
JULY											
02...	.01	7.1	11	4.9	3.3	5.7	50	0	12	2.8	--
AUG.											
14...	1.0	9.3	19	12	7.1	6.4	114	0	11	6.3	.4
14...	1.1	9.8	16	12	6.5	5.9	106	0	11	5.0	.4
14...	.10	--	16	10	6.0	5.2	102	0	8.0	3.0	.5
SEP.											
18...	.30	6.0	9.6	3.9	2.4	5.6	48	0	9.0	1.5	.0

07327435 SPRING CREEK NEAR TABLER, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
MAY											
24...	2.2	--	184	.25	.06	130	5	.3	288	7.6	40
27...	1.2	.06	299	.41	.24	240	0	.5	496	8.2	50
JUNE											
01...	1.7	.06	122	.17	.19	92	3	.2	195	7.4	--
03...	1.0	.08	114	.16	11.7	80	0	.2	170	8.0	--
05...	1.7	--	113	.15	.20	78	1	.2	172	7.5	20
07...	1.3	.09	240	.33	3.63	200	0	.4	410	8.5	30
08...	2.6	.00	106	.14	.29	74	0	.3	169	8.1	--
12...	.90	.06	218	.30	4.47	180	0	.4	375	8.5	0
15...	1.2	.06	302	.41	.11	260	0	.4	527	7.9	0
22...	.90	.00	270	.37	.04	230	0	.7	486	8.5	90
29...	2.1	.00	310	.42	.01	280	0	.8	519	8.4	20
JULY											
02...	2.4	--	105	.14	.07	76	1	.3	173	8.1	10
08...	1.1	.12	208	.28	.01	160	0	.4	348	8.3	100
26...	2.0	.20	193	.26	.02	150	1	.4	326	7.4	120
AUG.											
06...	1.2	.18	300	.41	1.21	240	0	.6	511	8.1	170
13...	1.4	.08	199	.27	.48	170	0	.4	363	8.3	--
14...	.80	.08	159	.22	1.07	120	0	.5	284	8.2	--
14...	.80	.08	153	.21	.45	120	0	.4	275	8.2	60
16...	.70	.08	182	.25	.02	166	5	.3	320	7.9	50
17...	.80	.08	232	.32	.03	190	0	.4	389	8.6	160
24...	.80	.01	233	.32	.01	190	0	.6	419	8.6	170
SEP.											
10...	1.1	.10	75	.10	.11	52	0	.2	121	7.6	80
20...	.80	.12	153	.21	.01	130	0	.3	263	8.3	70
28...	.50	.04	244	.33	.06	210	0	.4	413	8.5	70

07327437 SPRING CREEK TRIBUTARY NEAR MIDDLEBERG, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1968 to current year (discontinued)

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service, Chickasha, Oklahoma.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.											
08...	1.5	.14	170	.23	.78	140	12	.2	261	8.3	20
DEC.											
15...	4.7	.01	338	.46	.01	310	9	.4	580	8.5	--
22...	.40	.00	278	.38	.01	270	0	.4	501	8.7	80
31...	.70	.00	244	.33	.01	220	0	.4	444	8.6	--
JAN.											
12...	.20	.01	280	.38	.01	260	0	.4	501	8.8	100
28...	.00	.01	307	.42	.01	280	0	.4	532	8.5	110
FEB.											
02...	.00	.00	308	.42	.01	290	0	.4	549	8.5	90
MAR.											
09...	.20	.01	304	.41	.02	280	0	.4	520	8.5	0
18...	.40	.05	304	.41	.01	300	0	.4	551	8.5	10
23...	.00	.05	422	.57	.01	360	0	.4	706	8.2	0
30...	2.8	.12	368	.50	.01	330	0	.4	604	8.5	10
APR.											
08...	.10	.02	324	.44	.01	300	0	.4	567	8.5	0
MAY											
27...	1.7	.18	242	.33	.03	190	5	.3	387	8.1	30
JUNE											
01...	1.0	.02	256	.35	.02	230	0	.3	446	8.4	40
03...	1.5	.05	124	.17	.03	94	4	.3	200	8.2	--
04...	3.8	--	170	.23	.02	140	4	.2	292	7.9	20
12...	1.0	--	122	.17	.05	88	5	.2	186	8.0	--
JULY											
02...	4.5	--	80	.11	.00	49	7	.2	122	7.7	--
AUG.											
14...	1.4	.13	144	.20	.34	96	2	.3	213	8.0	100
14...	1.0	.12	140	.19	.42	88	1	.3	199	7.9	100
14...	.80	.09	124	.17	.03	82	0	.3	182	7.8	--
SEP.											
18...	.80	.12	64	.04	.06	40	1	.2	92	7.5	150

07327440 EAST BITTER CREEK NEAR TABLER, OKLA.

LOCATION.--Lat 35°05', long 97°50', in SW1/4 sec.27, T.7 N., R.6 W., Grady County, at gaging station at bridge on U.S. Highway 62, approximately 6.0 mi (9.6 km) east of Chickasha.

DRAINAGE AREA.--35.6 sq mi (92.2 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year (discontinued).
Water temperatures: October 1968 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
01-04	.62	19	35	42	22	4.5	284	12	40	14	.2
05-07	16	11	24	22	7.4	3.1	168	0	14	4.5	.2
08-09	16	11	26	14	5.2	2.6	128	0	19	6.5	.2
10-12	1.6	16	35	31	11	2.7	228	10	21	10	.2
13-25	1.9	21	35	43	20	3.5	308	16	18	12	.2
26-31	1.0	18	54	43	23	3.8	400	8	20	17	.2
NOV.											
01-10	1.2	12	27	50	26	3.8	324	12	32	12	.2
11-20	1.8	17	29	50	25	3.8	336	16	31	12	.2
21-30	1.3	19	34	55	26	3.6	372	14	28	12	.2
DEC.											
01-10	1.6	25	18	55	27	3.3	322	14	21	11	.3
11-20	1.8	28	22	54	27	3.0	340	10	21	11	.3
21-31	1.8	23	28	54	24	2.4	348	12	21	11	.2
JAN.											
01-15	2.1	20	21	52	26	2.6	318	12	25	12	.2
16-27	1.9	18	29	52	25	2.3	352	8	25	11	.2
28...	1.6	14	46	57	40	3.5	256	4	100	16	.2
29-31	1.9	18	28	54	26	2.4	360	10	24	11	.2
FEB.											
01-10	1.8	21	34	52	27	2.3	332	14	51	13	.2
11-20	2.0	20	30	50	26	2.4	364	4	25	13	.3
21-23	9.0	16	41	34	16	2.7	304	4	20	10	.3
24-28	2.7	20	38	49	23	2.8	372	0	26	12	.3
MAR.											
01-10	2.1	17	22	54	27	2.6	308	10	45	13	.2
11-20	1.8	16	35	59	29	2.9	370	6	54	14	.2
21-31	1.9	17	26	59	27	2.8	368	10	21	13	.2
APR.											
01-10	1.6	10	24	55	26	3.3	334	20	23	12	.3
11-20	1.7	9.8	42	49	29	3.8	396	0	22	13	.3
21-30	1.4	11	50	46	26	3.4	380	4	45	13	.3
MAY											
01-15	1.2	16	30	56	28	3.5	388	6	24	13	.2
16-22	.41	16	37	33	18	3.5	284	0	18	10	.3
23...	15	17	--	--	12	5.2	160	0	16	10	--
24-31	3.4	17	40	34	19	5.2	306	0	17	9.0	.3
JUNE											
01-02	20	13	27	19	10	3.8	182	0	12	5.5	.4
03...	215	11	19	8.8	3.4	5.1	102	0	4.0	2.5	.3
04-05	7.2	11	24	15	6.8	3.5	162	0	12	8.0	.4
06-07	2.2	16	45	33	16	4.6	268	10	17	7.5	.3
08...	85	11	19	12	5.0	2.9	120	0	12	2.0	.3
09-11	6.6	15	38	25	12	3.9	232	6	18	5.5	.3
12-13	50	12	28	16	6.1	3.5	168	0	9.0	4.0	.3
14-21	3.8	16	37	37	18	4.0	306	4	17	8.5	.4
22-30	1.2	16	40	50	24	4.2	372	8	22	11	.3
JULY											
01...	.50	7.6	15	63	28	4.5	350	16	24	14	.2
02-03	4.4	15	34	27	14	4.3	242	0	14	7.0	.2
04-10	.28	16	30	43	19	4.0	298	8	19	9.3	.2
11...	.10	11	22	69	32	4.1	404	12	34	16	.4
23...	1.6	7.4	26	78	36	3.8	450	14	40	18	.2
24-28	.78	8.2	25	24	12	4.7	198	0	15	7.8	.3
29-31	.20	9.5	31	36	17	5.1	282	0	17	9.1	.2
AUG.											
01...	.10	8.7	31	50	24	4.9	320	18	24	12	.2
07-13	.76	12	31	30	15	5.4	238	10	14	8.6	.2
14...	40	13	15	10	5.4	7.2	104	0	7.1	4.0	.2
15...	13	12	19	10	5.2	5.2	112	0	7.7	4.3	.3
16-19	1.7	11	35	25	12	4.4	230	8	13	6.4	.2
20-31	.22	12	39	56	26	4.9	396	12	23	14	.3
SEP.											
01-02	.10	10	34	67	34	4.9	454	0	30	15	.4
17...	1.0	10	34	68	36	4.6	440	8	37	16	.3
18-19	58	17	22	14	5.4	3.3	134	0	9.0	2.7	.2
20-23	1.5	12	38	32	13	3.8	278	0	14	6.0	.4
24-25	760	7.1	1000	8.8	4.2	3.9	98	0	5.9	2.9	.2
26-27	3.0	13	36	31	12	4.0	262	0	25	5.0	.4
28-30	1.7	18	43	49	17	4.3	386	0	17	8.4	.5
WTD. AVG.	--	10	1000	17	8.2	3.8	151	2	11	4.6	.2
TIME WTD. AVG.	--	16	42	47	23	3.6	329	8	26	11	.3
TOT. LOAD (TONS)	--	78	7400	128	61	29	1130	12	79	35	1.7

07327440 EAST BITTER CREEK NEAR TABLER, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 514 mg/l Jan.; minimum, 106 mg/l Sept. 24-25.
Hardness: Maximum, 350 mg/l Feb. 28; minimum, 80 mg/l Aug. 14.
Specific conductance: Maximum daily, 823 micromhos Jan. 28; minimum daily, 129 micromhos Sept. 24.
Water temperatures: Maximum, 33.0°C July 24-Aug. 22; minimum, 1.0°C Feb. 7.

Period of record.--Dissolved solids: Maximum, 776 mg/l July 17, 1969; minimum, 84 mg/l Sept. 22, 1970.
Hardness: Maximum, 475 mg/l Nov. 26, 1969; minimum, 50 mg/l Sept. 22, 1970.
Specific conductance: Maximum daily, 1,040 micromhos Jan. 9, 1970; minimum daily, 129 micromhos Sept. 24, 1971.
Water temperatures: Maximum, 33.0°C July 24-Aug. 22, 1971; minimum, 1.0°C Jan. 5, 20-22, 1970, Feb. 7, 1971.

REMARKS.--No flow July 12-22, Aug. 2-6, Sept. 3-16.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.											
01-04	1.9	.06	340	.46	.57	260	7	.6	522	8.6	200
05-07	3.1	.14	175	.24	7.56	150	12	.3	277	8.2	50
08-09	2.3	.18	155	.21	6.70	120	15	.2	214	8.2	40
10-12	1.0	.08	240	.33	1.04	220	16	.3	384	8.5	60
13-25	.80	.06	310	.42	1.54	264	0	.5	537	8.6	250
26-31	.50	.07	370	.50	1.00	320	0	.6	650	8.4	150
NOV.											
01-10	.30	.01	360	.49	1.17	280	0	.7	583	8.6	220
11-20	.30	.00	350	.48	1.70	280	0	.7	588	8.6	180
21-30	.70	.01	370	.50	1.40	310	4	.6	634	8.5	170
DEC.											
01-10	1.1	.02	321	.44	1.15	270	0	.7	568	8.6	220
11-20	1.1	.02	327	.44	1.54	280	0	.7	574	8.5	200
21-31	1.1	.02	340	.46	1.05	290	0	.6	594	8.5	240
JAN.											
01-15	1.4	.01	315	.43	1.77	270	0	.7	567	8.6	190
16-27	1.3	.01	333	.45	1.71	290	0	.6	594	8.5	140
28...	1.0	--	514	.70	2.50	350	3	.9	792	8.4	380
29-31	1.4	.01	337	.46	1.73	290	0	.7	600	8.5	180
FEB.											
01-10	1.2	.00	352	.48	1.71	300	4	.7	601	8.5	130
11-20	1.5	.00	384	.52	2.13	280	0	.7	602	8.4	100
21-23	2.5	.06	292	.40	7.10	250	0	.4	491	8.4	70
24-28	1.3	.00	347	.47	2.53	294	0	.6	600	8.3	140
MAR.											
01-10	1.0	.01	332	.45	1.44	260	11	.7	580	8.5	150
11-20	1.0	.02	392	.53	1.91	330	16	.7	662	8.4	200
21-31	1.0	.02	348	.47	1.78	310	0	.7	611	8.4	160
APR.											
01-10	.60	1.5	335	.46	1.44	290	0	.7	601	8.6	240
11-20	1.7	.00	378	.51	1.73	310	0	.7	601	8.3	160
21-30	.10	.17	375	.51	1.42	310	0	.7	637	8.4	250
MAY											
01-15	1.0	.02	369	.50	1.46	310	0	.7	644	8.4	270
16-22	5.0	.22	293	.40	.36	230	0	.5	491	8.0	160
23...	--	--	218	.29	6.75	130	0	.5	321	7.9	--
24-31	4.3	.26	311	.42	2.45	240	0	.5	517	8.0	160
JUNE											
01-02	4.0	.15	194	.26	10.5	150	1	.4	317	8.1	140
03...	3.5	.53	118	.16	66.2	88	0	.2	190	8.0	--
04-05	3.7	.14	178	.24	3.36	130	0	.3	286	8.2	120
06-07	4.4	.15	290	.39	--	250	3	.4	493	8.5	--
08...	1.5	.14	130	.18	29.8	98	0	.2	211	8.1	--
09-11	2.4	.13	240	.33	4.28	200	0	.4	398	8.4	150
12-13	2.8	.18	173	.24	23.4	140	2	.2	286	8.1	120
14-21	1.9	.08	298	.40	3.02	250	0	.5	507	8.4	220
22-30	1.6	.04	349	.47	1.13	300	0	.6	607	8.5	220
JULY											
01...	1.0	.01	340	.46	.46	300	0	.7	615	8.5	260
02-03	3.6	.22	237	.32	2.02	200	1	.4	401	8.3	140
04-10	1.8	.08	289	.39	.22	250	0	.5	502	8.4	200
11...	2.1	.13	412	.56	--	340	0	.8	682	8.5	330
23...	1.7	.11	456	.62	--	390	0	.8	761	8.5	340
24-28	3.1	.17	192	.26	.40	160	0	.4	344	8.1	140
29-31	2.3	.15	265	.36	.14	220	0	.5	463	8.3	180
AUG.											
01...	2.9	.16	336	.46	--	284	0	.6	572	8.6	220
07-13	2.0	.28	250	.34	.51	200	0	.5	421	8.5	150
14...	2.0	.53	128	.17	13.8	80	0	.3	190	8.3	20
15...	1.8	.34	132	.18	4.63	90	0	.2	217	8.3	0
16-19	1.7	.14	234	.32	1.07	190	0	.4	394	8.5	130
20-31	2.1	.11	388	.53	.23	330	0	.6	656	8.5	280
SEP.											
01-02	2.7	.22	450	.61	--	360	0	.8	720	8.3	380
17...	3.3	.36	450	.61	1.21	360	0	.8	755	8.4	280
18-19	1.9	.10	141	.19	22.1	110	0	.2	234	7.8	20
20-23	1.4	.10	268	.36	1.09	220	0	.4	451	7.8	100
24-25	1.6	.31	106	.14	218	80	0	.3	180	7.6	50
26-27	1.0	.11	254	.35	2.06	220	5	.6	426	8.1	110
28-30	.70	.12	354	.48	1.62	310	0	.4	602	8.0	170
WTD. AVG.	1.9	.26	158	.21	--	125	1	.2	268	7.9	80
TIME WTD. AVG.	1.6	.12	330	.45	--	274	2	.6	563	8.4	193
TOT. LOAD (TONS)	14	2.0	1190	--	--	--	--	--	--	--	1

07327440 EAST BITTER CREEK NEAR TABLER, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE (NO2) (MG/L)	DISSOLVED AMMONIA ORGANIC NITROGEN (N) (MG/L)	PHOSPHATE (PO4) (MG/L)
OCT. 19...	1.3	--	--	.00	--	.00	.50	.01
NOV. 16...	1.8	--	--	.20	--	.00	2.2	.03
DEC. 21...	1.8	--	--	.20	--	.00	.50	.01
JAN. 18...	2.0	--	--	.10	--	.03	.42	--
FEB. 16...	1.9	--	--	.00	--	.05	.39	--
MAR. 15...	1.7	--	--	.10	--	.02	.52	--
APR. 19...	--	--	--	.10	--	.02	1.7	--
JUNE 21...	8.8	4.0	.00	.00	.02	.09	.00	--
JULY 19...	.02	20	.00	.00	.01	.04	.10	--
AUG. 17...	2.0	5.0	.02	.10	.02	.09	.00	--
SEP. 20...	2.0	5.0	.14	.60	.02	.07	.00	--

07327440 EAST BITTER CREEK NEAR TABLER, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	613	573	588	549	552	568	539	589	262	615	554	664
2	542	616	544	586	581	597	586	621	373	333	---	717
3	516	606	556	540	563	527	583	619	189	401	---	---
4	518	597	566	548	589	572	577	638	231	433	---	---
5	273	612	565	629	575	524	604	618	344	466	---	---
6	259	568	560	557	555	532	547	682	504	473	---	---
7	312	568	596	571	624	584	635	635	---	---	---	---
8	152	574	606	657	700	565	596	---	211	542	375	---
9	271	---	569	592	769	592	618	677	333	593	336	---
10	319	593	565	---	591	---	601	645	440	569	395	---
11	395	622	608	554	619	632	618	691	422	602	444	---
12	439	569	583	513	557	619	698	632	222	---	442	---
13	491	615	597	516	571	689	647	715	344	---	513	---
14	507	544	---	596	571	667	691	638	450	---	190	---
15	615	547	593	522	657	638	608	696	499	---	217	---
16	528	585	559	557	617	659	617	702	508	---	351	---
17	554	549	633	598	593	652	651	735	535	---	347	755
18	528	591	554	547	674	---	708	758	562	---	457	193
19	567	635	555	579	730	---	654	744	626	---	453	269
20	655	762	565	596	719	693	611	755	562	---	533	372
21	576	---	587	575	---	628	581	757	317	---	572	421
22	---	615	542	632	456	626	635	---	514	---	635	474
23	455	704	550	646	537	640	665	321	569	761	641	525
24	502	614	544	647	595	621	---	426	618	339	652	129
25	569	631	630	588	633	642	650	489	562	321	608	226
26	626	618	609	641	671	589	685	580	640	393	673	373
27	686	644	617	---	---	---	690	402	637	426	696	442
28	668	652	665	823	660	592	721	471	686	266	715	569
29	662	630	630	---	---	671	719	---	682	385	775	613
30	---	757	651	569	---	645	693	584	656	495	737	639
31	721	---	638	557	---	692	---	---	---	495	748	---
MONTH	501	615	588	592	614	621	635	830	465	---	522	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	10.0	15.0	16.0	5.0	9.0	14.0	22.0	19.5	30.0	25.0	28.0
2	23.0	10.0	14.0	16.0	3.0	2.0	16.0	21.0	29.0	29.0	---	28.5
3	23.0	9.0	13.5	14.0	6.0	4.0	16.0	20.0	20.0	29.0	---	---
4	23.0	9.5	10.5	---	4.0	7.0	12.0	22.0	25.0	31.0	---	---
5	23.0	13.0	10.5	4.0	7.0	11.0	11.0	23.0	24.0	31.0	---	---
6	24.5	13.0	9.0	3.0	3.0	9.0	12.0	22.0	28.0	31.0	---	---
7	24.0	15.0	8.0	2.0	1.0	9.0	14.0	23.0	---	---	---	---
8	11.0	15.0	8.0	2.0	2.0	11.0	17.0	---	19.5	31.0	25.0	---
9	13.0	---	9.0	3.0	3.0	10.0	18.0	20.0	28.0	32.0	28.0	---
10	14.0	8.0	13.0	---	4.0	---	19.0	24.0	27.0	30.0	30.0	---
11	12.0	10.0	7.0	5.0	4.0	10.0	21.0	20.0	28.0	32.0	29.0	---
12	15.0	10.5	12.0	3.0	2.0	18.0	21.0	21.0	27.0	---	28.0	---
13	17.0	8.0	11.0	5.0	3.0	16.0	18.0	21.0	28.0	---	28.0	---
14	15.0	6.5	---	5.0	3.0	16.0	20.0	24.0	30.0	---	22.0	---
15	14.0	6.0	18.0	4.0	10.0	14.0	20.0	23.0	32.0	---	20.0	---
16	13.0	8.0	7.0	4.0	11.0	15.0	11.0	24.0	31.0	---	29.0	---
17	14.0	9.5	9.0	7.0	13.0	15.0	21.0	23.0	32.0	---	31.5	26.0
18	15.0	11.0	10.0	4.0	15.0	---	22.0	23.0	30.0	---	32.0	13.5
19	28.0	11.0	19.0	4.0	14.0	10.0	22.0	24.0	30.0	---	27.0	18.0
20	28.0	10.0	8.0	5.0	11.0	10.0	21.0	23.0	28.0	---	29.5	18.0
21	19.0	---	8.0	7.0	---	15.0	21.0	23.0	26.0	---	30.0	19.5
22	---	8.0	9.5	8.0	3.0	13.0	22.0	---	32.0	---	33.0	20.0
23	20.0	6.0	9.0	7.0	7.0	12.0	18.0	24.0	31.0	32.0	---	20.0
24	18.5	4.0	16.5	9.0	10.0	8.0	---	21.0	30.0	33.0	30.5	18.0
25	21.0	6.0	17.0	9.0	10.0	12.0	20.0	24.0	29.0	32.0	---	22.0
26	21.0	12.0	17.0	7.0	10.0	14.0	24.0	28.0	29.0	26.0	---	26.0
27	12.0	9.0	16.0	---	---	---	22.0	25.0	---	28.0	26.5	25.0
28	13.0	12.0	16.0	16.0	8.0	16.0	24.0	25.0	29.0	30.0	28.5	25.0
29	14.0	11.0	17.0	16.0	---	16.0	25.0	---	29.0	24.5	28.5	25.0
30	---	16.0	18.0	12.0	---	16.0	22.0	24.0	30.0	25.0	28.5	23.5
31	13.0	---	19.0	5.5	---	18.0	---	---	---	25.0	29.0	---
MONTH	18.0	10.0	12.5	7.0	6.5	12.0	19.0	23.0	28.0	---	---	---

07327490 LITTLE WASHITA RIVER NEAR NINNEKAH, OKLA.

LOCATION.--Lat 34°56'49", long 97°56'18", in SE1/4SE1/4 sec.32, T.6 N., R.7 W., Grady County, at gaging station at bridge on U.S. Highway 81, 1.0 mi (1.6 km) upstream from Rock Creek, 1.5 mi (2.4 km) west of Ninnekah, 5.5 mi (8.8 km) south of Chickasha, and at mile 8.4 (13.5 km).

DRAINAGE AREA.--208 sq mi (538.7 km²).

PERIOD OF RECORD.--Chemical analyses: January-September 1958, October 1967 to current year (discontinued). Water temperatures: October 1967 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
01-10	3.8	21	370	46	190	6.0	116	0	980	290	.7
11-20	3.9	16	360	44	200	4.9	172	0	890	340	.3
21-31	5.9	19	380	34	170	5.1	188	0	920	280	.4
NOV.											
01-15	5.2	20	380	39	170	4.8	164	0	890	300	.4
16-26	4.1	15	380	29	190	4.9	120	0	910	300	.3
27-30	4.8	19	400	39	170	4.7	234	0	930	260	.5
DEC.											
01-10	6.4	30	370	36	170	4.2	164	0	900	260	.4
11-20	6.6	23	360	39	170	5.5	170	0	860	280	.4
21-28	7.5	23	400	39	130	4.0	172	0	970	200	.4
29...	7.6	22	510	63	880	6.9	216	0	860	1700	.4
30-31	7.6	24	350	36	170	4.0	144	0	870	280	.4
JAN.											
01-10	8.9	30	350	36	170	3.5	96	0	910	260	.4
11-20	9.4	41	340	34	150	3.5	108	0	820	230	.4
21-31	7.4	31	350	36	150	3.3	132	0	890	230	.4
FEB.											
01-11	8.6	32	360	33	130	3.4	92	0	870	210	.3
12-17	7.9	27	360	32	140	3.2	124	0	820	240	.3
18-28	10	31	340	34	150	4.5	106	0	820	200	.4
MAR.											
01-10	10	22	350	39	120	3.4	138	0	850	210	.5
11-19	7.4	20	360	39	140	4.9	150	0	870	240	.4
21-31	6.3	16	370	39	140	4.0	166	0	840	270	.4
APR.											
01-10	5.7	12	370	42	140	4.2	178	0	890	260	.4
11-20	4.9	13	380	39	140	4.7	204	0	800	280	.5
21-29	3.0	13	370	33	140	4.2	194	0	800	280	.5
30...	3.3	17	330	32	59	3.2	198	0	730	100	.5
MAY											
01-08	3.0	20	420	39	210	5.2	172	0	900	430	.4
09-12	10	19	380	32	120	7.0	194	0	850	210	.4
13-23	1.9	15	390	44	210	4.6	108	0	890	430	.4
24...	3.1	13	230	29	110	19	148	0	480	230	.4
25-30	2.6	13	320	44	180	8.7	134	0	710	390	.4
31...	100	18	430	46	300	5.9	196	0	780	880	.4
JUNE											
01...	531	12	120	11	40	6.2	80	0	280	79	.3
02-12	13	22	380	29	110	7.0	110	0	940	170	.5
13...	14	--	190	16	53	5.4	118	0	400	88	--
14-21	4.5-	18	380	32	140	6.8	106	0	890	250	.5
22-23	11	17	270	22	82	6.2	120	0	820	120	.5
24-30	1.5	23	330	39	170	7.1	92	0	1000	240	.5
JULY											
01-04	.48	21	460	51	160	7.3	180	0	1200	240	.8
24-26	6.0	17	470	41	200	8.2	134	0	1100	370	.7
27-31	6.7	12	320	23	83	7.5	70	0	820	120	.8
AUG.											
01-04	.82	22	260	34	60	7.9	114	0	680	70	.3
06-08	4.8	22	260	34	60	7.9	114	0	680	70	.3
09-13	5.7	9.6	260	24	74	6.8	76	0	680	40	.4
14...	338	8.4	150	12	31	4.8	68	0	360	52	.3
15-16	50	16	280	17	64	9.3	138	0	680	82	.4
17-29	5.0	10	360	30	160	5.6	120	0	1000	190	.5
30-31	4.8	10	420	44	300	6.6	126	0	820	760	.5
SEP.											
01...	3.3	11	340	39	320	6.7	98	0	680	640	.2
02-16	.83	14	400	41	150	5.9	130	0	1100	200	.2
17...	.50	11	400	44	240	6.5	112	0	1000	380	.5
18...	172	7.4	61	6.8	40	5.2	70	0	95	76	.2
19-20	16	12	240	17	110	7.3	114	0	600	120	.1
21-23	5.3	14	330	34	160	6.6	142	0	820	220	.2
24-25	152	10	99	7.8	30	5.1	116	0	190	44	--
26-30	9.5	20	380	19	120	6.4	172	0	860	180	.1
WTD. AVG.	--	18	267	25	108	5.2	116	0	627	183	.4
TIME WTD. AVG.	11	29	361	36	153	5.2	139	0	873	256	.4
TOT. LOAD (TONS)	--	170	2600	247	1050	51	1150	0	6100	1780	5.5

07327490 LITTLE WASHITA RIVER NEAR NINNEKAH, OKLA.

EXTREMES: Current Year.-- Dissolved solids: Maximum, 4,490 mg/l Dec. 29; minimum, 355 mg/l Sept. 18.
Hardness: Maximum, 1,500 mg/l Dec. 29; minimum, 180 mg/l Sept. 18.
Specific conductance: Maximum daily, 6,460 micromhos Dec. 29; minimum daily, 573 micromhos Sept. 18.
Water temperatures: Maximum, 34.5°C July 1; minimum, freezing point on Jan. 4, Feb. 8.

Period of record.--Dissolved solids (1967-71): Maximum, 5,250 mg/l Oct. 6, 1967; minimum, 294 mg/l Sept. 22, 1970.
Hardness: Maximum, 1,740 mg/l Oct. 6, 1967; minimum, 168 mg/l Sept. 22, 1970.
Specific conductance (1967-71): Maximum daily, 7,510 micromhos Oct. 6, 1967; minimum daily, 596 micromhos May 31, 1968.
Water temperatures (1967-71): Maximum, 40.0°C July 3, 1970; minimum, freezing point on several days during 1967, 1968, 1970, and 1971.

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U. S/ Department of Agriculture, Agriculture Research Service, Chickasha, Oklahoma. No flow July 5, 23, August 5.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED NITRATE (NO3) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SODIUM AD- SORP- TION RATIO	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED BORON (B) (UG/L)
OCT.											
01-10	4.1	.10	1980	2.69	20.5	1100	1000	2.5	2570	7.8	190
11-20	2.8	.06	1960	2.67	20.6	1100	959	2.6	2550	7.9	180
21-31	1.9	.07	1950	2.65	31.0	1100	946	2.2	2500	8.0	150
NOV.											
01-15	.10	.04	1860	2.53	20.1	1100	965	2.2	2580	81.0	190
16-26	2.8	.06	1880	2.56	20.8	1100	1000	2.5	2530	8.0	180
27-30	1.9	.06	1920	2.61	25.0	1200	1010	2.2	2550	8.0	180
DEC.											
01-10	4.7	.11	1930	2.62	33.5	1100	965	2.3	2430	8.1	200
11-20	7.0	.02	1920	2.61	34.2	1100	961	2.3	2450	8.2	180
21-28	6.6	.05	2000	2.72	40.5	1200	1060	1.7	2390	8.0	190
29...	11	.09	4490	6.11	42.1	1500	1320	9.8	6460	8.5	230
30-31	7.7	.07	1940	2.64	39.8	1100	980	2.3	2540	--	170
JAN.											
01-10	6.3	.00	1990	2.71	48.0	1000	921	2.3	2420	8.0	160
11-20	11	.00	1860	2.53	47.2	990	901	2.1	2340	8.0	140
21-31	7.4	.01	1870	2.54	57.3	1000	892	2.0	2360	8.1	120
FEB.											
01-11	9.8	.01	1890	2.57	44.0	1000	925	1.8	2300	8.2	140
12-17	12	.01	1900	2.58	40.5	1000	898	1.9	2340	8.1	140
18-28	12	.05	1800	2.45	87.4	980	893	1.8	2200	8.1	120
MAR.											
01-10	8.1	.05	1790	2.43	48.3	1000	887	1.6	2210	8.0	70
11-19	4.4	.05	1850	2.52	57.0	1100	993	1.4	2330	8.0	210
21-31	2.4	.11	1860	2.53	52.0	1100	964	1.7	2390	8.2	100
APR.											
01-10	2.0	.08	1940	2.64	30.0	1100	954	1.8	2510	8.2	100
11-20	3.0	.17	1980	2.69	26.1	1100	933	1.8	2380	8.3	120
21-29	1.0	.10	2000	2.72	16.2	1100	941	1.9	2400	8.2	160
30...	1.7	.00	1470	2.00	13.0	950	788	.6	1820	8.1	190
MAY											
01-08	2.1	.08	2340	3.18	19.0	1200	1060	2.6	2940	8.1	160
09-12	4.1	.20	1950	2.65	53.0	1100	941	1.6	2270	8.1	130
13-23	1.4	.10	2220	3.02	11.4	1200	1110	2.7	2900	7.8	130
24...	2.6	.17	1340	1.82	11.2	690	569	1.8	1770	8.1	50
25-30	.90	.16	1950	2.65	13.7	980	870	2.5	2550	7.6	130
31...	1.4	.19	2640	3.59	713	1300	1140	3.7	3550	8.2	160
JUNE											
01...	1.8	.29	631	.86	905	560	290	.9	893	7.9	80
02-12	4.3	.28	1880	2.56	66.0	1100	1000	1.5	2200	8.0	180
13...	--	--	937	1.27	35.4	540	440	1.0	1200	8.1	--
14-21	3.6	.39	1990	2.71	28.7-	1000	910	1.9	2360	7.8	190
22-23	3.0	.21	1370	1.86	40.7	760	660	1.5	1660	8.0	150
24-30	2.5	.30	1980	2.69	8.02	1100	1000	2.2	2510	7.5	230
JULY											
01-04	.40	.23	2430	3.30	3.15	1400	1300	1.9	2770	8.2	320
24-26	2.4	.39	2560	3.48	41.5	1400	1300	2.4	3020	8.1	190
27-31	3.0	.24	1580	2.15	28.6	900	840	1.2	1880	7.7	170
AUG.											
01-04	2.1	.24	1310	1.78	2.90	780	690	.9	1540	8.3	290
06-08	2.1	.24	1310	1.78	17.0	780	690	.9	1540	8.3	290
09-13	2.7	.16	1290	1.75	19.9	740	680	1.2	1570	7.9	150
14...	2.9	.07	706	.96	644	440	380	.7	937	8.0	0
15-16	6.3	.24	1340	1.82	181	770	660	1.1	1610	8.3	140
17-29	1.8	.26	1990	2.71	26.9	1000	900	2.2	2380	7.9	330
30-31	.80	.18	2810	3.82	36.4	1200	1100	4.5	3760	8.1	60
SEP.											
01...	1.3	.10	2320	3.16	20.7	1000	920	4.4	3280	8.1	180
02-16	.90	.13	2110	2.87	4.73	1200	1100	1.9	2490	8.1	290
17...	.90	.24	2340	3.18	5.16	1200	1100	3.0	2990	8.2	290
18...	2.8	.30	355	.48	165	180	120	1.3	587	8.0	--
19-20	6.9	.23	1270	1.73	61.7	680	590	1.9	1630	8.3	150
21-23	2.6	.14	1790	2.43	25.6	960	840	2.2	2260	7.8	230
24-25	4.7	.32	480	.65	197	280	190	.9	723	7.9	--
26-30	3.6-	.10	1800	2.45	46.2	1000	860	1.6	2200	7.7	180
WTD. AVG.	4.5	.16	1400	1.91	--	778	680	1.6	1790	8.9	127
TIME WTD. AVG.	4.1	.12	1910	2.60	--	1050	940	2.0	2380	10.4	175
TOT. LOAD (TONS)	43	1.5	13600	--	--	--	--	--	--	--	1

07327490 LITTLE WASHITA RIVER NEAR NINNEKAH, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (NO2) (MG/L)	DISSOLVED AMMONIA ORGANIC NITROGEN (N) (MG/L)	PHOSPHATE (PO4) (MG/L)
OCT.								
19...	4.5	--	--	1.2	--	.68	1.4	.06
NOV.								
16...	4.8	--	--	.60	--	.19	2.2	.06
DEC.								
21...	22	--	--	.60	--	.35	2.4	.10
JAN.								
18...	7.6	--	--	2.4	--	.25	2.2	--
FEB.								
16...	7.2	--	--	2.7	--	.35	5.7	--
MAR.								
15...	7.0	--	--	1.0	--	.50	.74	--
APR.								
19...	7.6	--	--	.20	--	.30	1.1	--
MAY								
17...	.90	420	.00	.00	.00	.02	.31	--
JUNE								
21...	6.8	86	.50	2.2	.09	.30	1.0	--
AUG.								
17...	11	130	.00	.00	.14	.46	1.2	--
SEP.								
20...	9.0	110	.09	.40	.05	.17	.38	--

07327490 LITTLE WASHITA RIVER NEAR NINNEKAH, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2730	2500	2440	---	2290	2290	2640	3280	889	2680	1580	3260
2	2710	2540	2460	2310	2150	---	---	2590	1890	---	1720	---
3	2710	---	2440	2210	2310	2100	---	2730	2110	2840	---	2260
4	2800	2720	2390	2970	---	2200	2290	2730	2240	2840	---	2300
5	2730	2540	2330	---	---	2230	2310	3150	---	---	---	2330
6	2720	2510	2310	---	2230	2340	2260	3260	2390	---	---	2780
7	---	2590	2340	2460	---	2230	2540	2820	2490	---	1900	---
8	2120	2610	---	2270	2380	2260	2370	---	2560	---	2030	2690
9	---	2660	2560	---	2480	---	2370	2390	2160	---	1740	---
10	2190	2550	2630	2250	---	2310	2320	2160	2160	---	1470	2540
11	---	---	2550	2230	---	2230	2280	2120	1920	---	1590	2510
12	2210	---	2610	2280	2320	2350	2470	2340	2190	---	1540	2420
13	2340	---	2500	2290	2290	---	2360	2580	1200	---	1520	2550
14	2710	---	2550	2280	2400	2320	2440	2820	---	---	937	---
15	---	---	2390	2320	2290	2360	2380	---	---	---	1410	---
16	2650	---	2350	2230	2370	2240	---	2820	2040	---	1790	---
17	2580	---	2420	2270	2400	2420	---	2820	2350	---	2030	2970
18	2890	---	2440	---	1770	2390	2370	3140	2520	---	2100	573
19	---	---	2420	2390	3440	2340	2340	3170	---	---	2250	---
20	2600	---	2350	2210	2230	---	2410	---	---	---	2420	1640
21	2570	---	2440	2140	---	2360	2450	3000	2500	---	---	2040
22	2160	---	2420	2330	---	---	2310	2990	1740	---	---	2470
23	---	---	---	2320	2190	2530	2270	2610	1590	---	2490	---
24	2600	2530	2440	2270	2190	2370	2050	1770	2080	3030	---	696
25	2410	---	2440	2390	2220	2290	2090	2920	---	---	2490	---
26	2440	---	---	2300	2320	2290	---	---	2470	---	2590	1750
27	2610	2640	---	2300	2250	2290	2680	3070	---	2310	2700	2110
28	---	2660	2390	2260	2320	---	2790	2100	2580	1820	---	2330
29	---	2510	6460	2220	---	2400	2560	2100	2660	2520	2300	2460
30	2650	2480	---	2400	---	2290	1820	---	2700	1500	---	2540
31	2640	---	2540	2300	---	2690	---	3550	---	---	3690	---
MONTH	---	---	2600	2320	---	2330	2370	2730	---	---	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	10.0	10.0	---	5.0	11.0	17.5	21.0	19.0	34.5	28.0	28.5
2	23.0	10.0	10.0	7.0	2.5	---	---	23.0	31.0	---	30.0	---
3	23.0	---	10.0	5.0	8.0	4.0	---	24.0	27.5	32.0	---	28.0
4	24.0	10.0	10.0	0.0	---	10.0	14.5	25.0	26.5	26.0	---	27.5
5	24.0	10.0	10.0	---	---	13.5	11.0	23.0	---	---	---	30.0
6	25.0	10.0	10.0	---	1.5	9.0	14.5	28.0	28.5	---	---	32.5
7	---	10.0	9.0	1.0	6.0	10.5	15.5	25.5	27.0	---	24.5	---
8	11.0	10.0	---	2.0	0.0	11.5	18.5	---	26.0	---	26.5	29.0
9	---	---	10.0	---	1.5	---	21.0	19.0	27.5	---	31.5	---
10	23.0	10.0	11.0	2.5	---	15.0	19.0	26.0	28.5	---	31.0	34.0
11	---	10.0	8.0	4.0	---	16.5	25.0	22.0	27.0	---	30.5	32.0
12	23.0	10.0	8.0	1.5	8.0	18.5	20.5	20.0	28.0	---	30.0	32.0
13	18.0	---	8.0	5.0	8.5	---	21.5	25.5	27.0	---	27.0	30.5
14	18.0	10.0	6.0	3.5	11.0	16.0	18.0	26.0	---	---	23.0	---
15	---	10.0	8.0	3.5	12.0	17.5	20.5	---	---	---	25.5	---
16	11.0	10.0	8.0	6.0	12.5	18.5	---	26.5	31.0	---	31.5	---
17	11.5	---	9.0	6.0	14.5	14.0	---	27.0	29.0	---	33.0	32.5
18	---	10.0	9.0	---	14.5	11.0	22.0	22.0	25.0	---	30.5	12.5
19	---	10.0	8.0	2.5	14.0	12.0	22.0	24.5	---	---	31.0	---
20	11.5	10.0	5.0	4.5	10.5	---	19.0	---	---	---	---	19.5
21	11.0	10.0	9.0	8.0	---	16.5	21.0	25.0	26.0	---	---	21.5
22	11.0	---	8.0	8.5	---	---	23.0	24.0	30.5	---	---	27.0
23	---	4.0	---	5.0	9.5	12.5	17.5	24.5	29.0	---	28.0	---
24	20.0	3.0	3.0	7.5	12.0	7.0	25.0	24.5	30.0	30.0	---	16.5
25	21.0	5.0	3.0	7.0	16.0	14.5	23.0	24.0	---	---	28.5	---
26	20.0	---	6.0	6.5	11.5	15.0	---	---	32.5	---	30.5	---
27	20.0	11.0	5.0	---	12.5	14.5	22.5	18.0	---	27.0	31.0	---
28	---	10.0	5.0	8.0	8.5	---	17.5	23.5	29.0	29.0	---	---
29	---	10.0	6.0	12.0	---	18.5	16.0	19.5	32.0	24.0	29.0	---
30	20.0	10.0	---	7.0	---	17.5	20.5	---	32.5	25.0	---	---
31	14.0	---	6.0	4.0	---	16.0	---	27.5	---	---	28.0	---
MONTH	---	9.5	7.5	5.0	9.0	13.5	19.5	24.0	---	---	---	---

07328100 WASHITA RIVER AT ALEX, OKLA.

LOCATION.--Lat 34°55'35",long 97°46'30", in NW1/4 sec.7, T.5 N., R.5 W., Grady County, at gaging station at bridge on county road 1.0 mi (1.6 km) north of Alex, 3.8 mi (6.1 km) downstream from Winter Creek, and at mile 226.5 (364.4 km).

DRAINAGE AREA.--4,787 sq mi (12,398.3 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to current year (discontinued).
Water temperatures: October 1964 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT.											
01-04	79	12	160	60	75	7.6	156	2	510	100	.3
05-06	168	11	98	28	44	6.4	172	4	250	44	.3
07...	220	10	78	23	50	6.1	130	0	200	24	.4
08...	314	--	27	5.8	6.7	2.0	100	0	18	3.0	.3
09...	216	9.4	43	15	19	4.1	116	0	88	23	.5
10-14	86	9.0	72	22	32	5.1	140	2	180	26	.5
15-25	65	15	128	39	64	6.3	212	8	310	64	.5
26-31	51	12	180	59	92	7.0	250	8	480	110	.5
NOV.											
01-10	46	12	220	72	110	6.7	284	10	630	120	.3
11-20	59	12	220	63	110	6.6	292	12	600	110	.4
21-30	54	14	260	63	120	7.2	340	0	720	130	.4
DEC.											
01-10	59	18	250	75	110	6.9	298	26	690	120	.5
11-20	70	17	240	70	110	6.2	284	24	650	110	.4
21-31	67	18	260	72	110	5.0	288	26	710	120	.4
JAN.											
01-02	64	12	250	70	120	5.3	296	18	660	140	.4
03...	102	15	170	52	73	4.7	254	16	430	77	.4
04-19	79	14	250	67	110	5.5	284	12	680	120	.4
20-31	75	24	220	62	88	5.6	274	10	620	92	.4
FEB.											
01-10	66	9.9	240	66	110	4.6	250	26	660	120	.4
11-19	81	12	250	68	110	4.7	256	24	670	120	.4
20-24	104	12	150	42	67	4.2	202	8	370	72	.3
25-28	102	39	220	61	96	5.0	238	26	580	110	.4
MAR.											
01-10	96	18	240	62	100	4.4	262	18	670	110	.4
11-20	72	13	240	80	98	5.0	262	20	700	100	.5
21-31	56	12	230	79	100	5.4	292	14	670	110	.5
APR.											
01-10	29	7.5	200	70	100	6.0	240	16	550	130	.4
11-20	20	6.5	170	54	97	6.5	268	0	440	120	.4
21-30	23	6.5	150	57	100	6.8	276	0	420	120	.4
MAY											
01-11	19	15	170	61	110	7.3	320	8	440	130	.4
12...	20	19	250	60	180	6.0	284	14	540	340	.4
13...	16	16	170	46	96	7.3	240	0	440	120	.4
14-24	7.1	14	140	50	77	6.6	348	4	320	86	.5
25-27	28	7.9	91	42	53	6.0	318	0	170	60	.4
28...	211	9.7	43	12	32	7.3	120	0	92	29	.3
29-31	32	8.2	59	22	38	7.8	148	0	160	32	.3
JUNE											
01-02	979	15	90	16	24	6.5	128	0	190	40	.3
03-05	1200	11	57	14	15	5.8	120	0	110	14	.2
06-07	160	12	94	21	34	7.0	138	0	230	35	.2
08-10	710	11	43	10	11	5.2	132	0	57	11	.1
11-13	408	15	76	17	35	6.4	132	0	170	41	.3
14...	399	13	130	33	47	7.8	150	0	370	49	.3
15-20	236	15	110	25	28	7.3	120	0	300	24	.3
21-25	220	10	55	13	19	6.5	120	0	110	19	.1
26-30	40	14	96	34	51	8.5	212	0	240	50	.3
JULY											
01-03	38	12	71	37	42	7.4	216	0	200	37	.3
04...	473	18	92	45	60	9.0	228	0	260	55	.3
05-14	228	19	69	20	16	6.7	112	0	170	15	.3
15-25	8.3	14	82	50	29	8.4	196	0	280	25	.4
26-27	15	9.1	120	42	77	8.4	214	0	340	81	.3
28...	50	12	45	36	44	5.7	156	0	160	49	.2
29-30	102	9.4	120	47	51	9.1	172	0	380	51	.4
31...	86	7.5	55	45	41	7.8	172	0	230	30	.6
AUG.											
01-03	77	9.6	120	54	57	8.7	166	0	340	51	.4
04-06	48	9.3	180	74	82	11	156	0	700	54	.4
07-12	53	8.4	120	45	56	8.7	150	0	410	45	.4
13...	37	10	62	28	29	7.0	110	0	190	33	.3
14...	389	7.3	28	8.3	5.1	3.9	94	0	23	5.5	.2
15...	392	8.4	99	14	27	5.5	114	0	220	33	.3
16-17	250	11	140	44	62	8.7	152	0	450	49	.5
18-19	108	10	110	28	36	6.3	120	0	300	29	.3
20-21	110	9.3	180	61	99	9.1	158	0	640	100	.4
22-31	37	8.4	120	34	55	8.2	102	0	340	49	.4

07328100 WASHITA RIVER AT ALEX, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,670 mg/l May 12; minimum, 140 mg/l Oct. 18.
Hardness: Maximum, 940 mg/l Dec. 1-10, Dec. 21-31, Aug. 14; minimum, 92 mg/l Oct. 8.
Specific conductance: Maximum daily, 2,320 micromhos May 12; minimum daily, 200 micromhos Aug. 14.
Water temperatures: Maximum, 33.0°C July 1, 16-17, Sept. 7; minimum 3.0°C Feb. 9.

Period of record.--Dissolved solids: Maximum, 1,1670 mg/l May 12, 1971; minimum, 140 mg/l Oct. 18,1970.
Hardness: Maximum, 1,020 mg/l Feb. 1-10, 1967; minimum, 92 mg/l Oct. 8, 1970.
Specific conductance: Maximum daily, 4,550 micromhos June 20, 1967; minimum daily, 200 micromhos Aug. 14, 1971.
Water temperatures: Maximum, 34.0°C on several days during June and July in 1965 and 1970; freezing point on several days during January and February.

REMARKS.--Records of discharge for water year October 1970 to September 1971 furnished by U.S. Department of Agriculture, Agriculture Research Service, Chickasha, Oklahoma.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
OCT.											
01-04	.90	.74	990	1.35	204	880	509	1.3	1580	8.3	140
05-06	1.2	.78	585	.80	265	580	212	1.0	856	8.4	190
07...	4.9	--	445	.61	288	290	103	.8	644	8.1	--
08...	8.4	--	140	.19	119	92	10	.3	217	8.0	70
09...	5.8	.47	255	.35	149	170	75	.6	400	8.1	--
10-14	2.8	.58	430	.58	99.8	270	105	.8	654	8.3	50
15-25	2.2	.82	850	1.13	148	880	243	1.3	1150	8.5	340
26-31	3.4	1.4	1100	1.50	151	680	482	1.5	1500	8.4	210
NOV.											
01-10	3.7	2.2	1440	1.96	174	880	590	1.6	1770	8.5	270
11-20	3.4	2.0	1240	1.69	198	800	546	1.7	1740	8.6	290
21-30	3.4	.47	1520	2.07	222	900	621	1.7	1940	8.2	270
DEC.											
01-10	3.2	2.1	1490	2.03	237	940	652	1.6	1910	8.7	330
11-20	3.1	2.1	1380	1.88	201	880	607	1.6	1810	8.6	290
21-31	3.0	2.2	1470	1.99	288	940	662	1.6	1910	8.6	280
JAN.											
01-02	1.7	1.8	1580	2.09	288	910	610	1.7	1920	8.6	300
03...	3.4	1.4	1050	1.43	284	650	345	1.3	1390	8.8	220
04-19	5.3	2.0	1500	2.04	320	900	647	1.0	1900	8.5	330
20-31	3.7	2.2	1360	1.85	275	820	574	1.4	1720	8.5	330
FEB.											
01-10	2.9	1.7	1500	2.04	267	890	642	1.6	1880	8.8	270
11-19	3.7	2.0	1500	2.04	328	900	650	1.8	1890	8.7	270
20-24	9.9	1.1	905	1.23	400	540	361	1.2	1220	8.5	210
25-28	2.5	1.5	1340	1.82	383	810	571	1.5	1720	8.7	190
MAR.											
01-10	3.5	1.8	1400	1.91	378	850	605	1.5	1820	8.6	270
11-20	2.2	1.7	1510	2.05	244	920	672	1.4	1830	8.6	300
21-31	2.0	2.1	1490	2.03	225	900	637	1.5	1850	8.5	340
APR.											
01-10	3.0	1.5	1300	1.77	162	790	508	1.6	1610	8.5	240
11-20	2.2	1.1	1150	1.56	62.1	640	420	1.7	1510	8.3	250
21-30	1.4	1.2	1090	1.48	87.7	610	388	1.8	1390	8.0	280
MAY											
01-11	3.8	2.3	1200	1.63	81.6	670	394	1.6	1610	8.8	380
12...	6.3	2.8	1670	2.27	40.2	980	824	2.7	2320	8.5	120
13...	8.1	1.7	1130	1.54	48.8	810	413	1.7	1500	8.3	250
14-24	2.7	2.6	934	1.28	18.0	580	208	1.4	1310	8.4	270
25-27	2.4	1.4	621	.84	48.9	400	159	1.2	955	8.2	210
28...	5.8	1.5	315	.43	178	180	62	1.1	469	7.4	150
29-31	5.5	1.4	424	.58	30.8	240	119	1.1	641	8.0	230
JUNE											
01-02	4.1	.74	490	.67	1300	240	185	.7	704	8.1	20
03-05	4.8	.53	328	.44	1000	200	102	.5	486	8.1	40
06-07	3.7	.84	551	.75	232	320	207	.8	762	8.3	50
08-10	3.4	.42	233	.32	447	150	42	.4	353	8.2	10
11-13	3.9	.88	459	.62	508	280	152	.9	684	8.2	70
14...	4.9	.84	794	1.08	855	470	347	1.0	1080	8.3	40
15-20	5.2	.78	605	.82	388	380	282	.6	825	8.1	70
21-25	3.4	.70	310	.42	184	190	92	.6	475	8.0	60
26-30	2.2	1.4	650	.88	88.7	380	206	1.1	912	8.0	100
JULY											
01-03	3.0	1.1	533	.72	54.7	330	150	1.0	747	8.3	200
04...	5.2	[illegible]	750	1.02	458	420	230	1.3	1010	8.3	150
05-14	5.8	.81	404	.55	249	260	170	.4	580	8.1	110
15-25	1.8	.84	628	.85	14.1	410	250	.6	865	8.2	150
26-27	2.0	1.1	868	1.18	35.2	460	280	1.5	1180	8.2	160
28...	5.4	.45	472	.64	63.7	280	130	1.2	699	8.3	80
29-30	2.4	1.8	768	1.04	220	480	340	1.0	1090	8.0	20
31...	4.9	1.4	558	.76	130	320	180	1.0	781	8.2	160
AUG.											
01-03	8.0	1.1	780	1.06	102	430	290	1.2	1030	8.2	180
04-06	5.5	1.0	1290	1.75	187	740	610	1.5	1580	8.1	220
07-12	4.3	1.1	[illegible]	1.05	120	480	380	1.1	1110	8.2	200
13...	4.2	.99	[illegible]	.60	44.0	280	170	.8	625	8.3	20
14...	2.7	.18	142	.19	139	94	17	.2	200	8.2	0
15...	3.1	.33	514	.70	544	310	220	.7	629	8.0	0
16-17	4.0	.75	920	1.25	821	520	400	1.2	1180	8.2	210
18-19	3.3	.73	632	.86	184	370	270	.8	847	8.3	140
20-21	2.1	.94	1280	1.74	380	710	580	1.6	1620	8.2	290
22-31	2.1	1.2	780	1.06	77.9	430	300	1.1	1030	8.2	190

07328100 WASHITA RIVER AT ALEX. OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
SEP.											
01-03	96	16	120	38	57	9.7	186	0	350	50	.4
04-05	68	13	68	21	36	7.2	150	0	170	42	.4
06-07	40	9.7	110	30	71	8.9	144	0	310	84	.4
08-09	86	11	65	22	42	7.5	150	0	160	41	.4
10...	229	18	140	39	34	9.1	124	0	420	38	.4
11-20	152	11	51	15	26	6.3	118	0	110	25	.4
21-22	669	11	65	22	49	6.5	118	0	180	53	.5
23-30	805	12	50	11	16	5.1	106	0	88	23	.3
WTD. AVG.	--	13	116	33	49	6.1	108	5	298	52	.3
TIME WTD. AVG.	120	13	164	51	77	6.4	227	8	446	83	.4
TOT. LOAD (TONS)	--	1560	13700	3860	5770	719	20000	546	35300	6210	38

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	1700	1940	2010	1830	1690	1710	1680	801	935	755	1080
2	1300	1700	1940	1920	1810	1710	1680	1700	602	546	1050	940
3	1400	1760	1960	1390	1820	1720	1680	1580	588	888	1170	1150
4	1350	1780	1970	1860	1640	1770	1740	1520	363	1010	1630	600
5	908	1720	1940	1750	1860	1770	1780	1880	488	540	1560	737
6	806	1760	1910	1820	1850	1860	1650	1630	645	703	1390	1180
7	645	1750	1880	1900	1930	1690	1710	1520	880	528	1090	923
8	214	1830	1680	1750	2020	1960	1680	1560	348	591	821	731
9	400	1870	1870	2050	1880	1990	1680	1450	304	491	1250	626
10	743	1820	1870	1910	1910	1970	1610	1400	416	513	1150	1080
11	696	1840	1790	1810	1930	1970	1570	1530	625	540	796	557
12	540	1740	1900	1820	1870	1940	1540	2320	631	583	1170	433
13	600	1740	1910	1810	1850	1830	1560	1500	709	628	625	432
14	695	1580	1990	1830	1850	1760	1500	1230	1060	694	200	485
15	429	1570	1940	2120	1880	1840	1510	1180	759	777	824	533
16	980	1550	1740	2040	1690	1800	1500	1170	908	862	1030	496
17	1130	1710	1700	2000	1800	1820	1490	1270	682	894	1300	476
18	1110	1900	1670	1960	1690	1860	1580	1280	851	927	868	484
19	1190	1800	1700	1830	1920	1850	1540	1290	939	952	994	548
20	1310	1870	1770	1550	1380	1890	1540	1340	805	920	1280	477
21	1340	1850	1870	1490	1210	1940	1560	1430	468	915	1870	850
22	1490	1990	1690	1590	1040	1950	1540	1430	345	927	934	590
23	1040	1890	1890	1690	1130	1960	1550	1270	449	846	1000	356
24	920	1970	1890	1710	1300	1980	1540	1450	515	868	956	355
25	1180	1940	1900	1800	1620	1940	1520	1010	573	727	801	397
26	1310	1980	1930	1850	1830	1880	1420	981	753	1110	918	417
27	1440	1930	1860	1850	1830	1790	1540	890	962	1260	952	574
28	1490	1940	1880	1720	1720	1770	1600	469	954	699	1110	326
29	1570	1940	1890	1720	---	1770	1440	561	959	932	1160	394
30	1600	1930	1880	1760	---	1760	1360	742	959	1250	1110	358
31	1690	---	2200	1800	---	1720	---	620	---	781	1100	---
MONTH	1070	1810	1880	1810	1740	1850	1580	1320	677	795	1050	619

07328100 WASHITA RIVER AT ALEX, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED NITRATE (NO3) (MG/L)	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED BORON (B) (UG/L)
SEP.											
01-03	4.2	1.7	776	1.05	200	460	310	1.2	1060	8.4	230
04-05	5.8	1.3	452	.58	65.0	260	150	1.0	674	8.2	100
06-07	2.3	1.1	726	.99	78.4	400	280	1.5	1050	8.1	170
08-09	3.9	1.2	450	.61	104	250	130	1.1	688	8.0	180
10...	7.3	.89	820	1.12	507	510	410	.8	1080	8.1	150
11-20	5.9	1.1	330	.45	135	190	98	.8	498	7.8	80
21-22	4.9	.91	470	.64	848	250	150	1.3	719	7.8	110
23-30	3.8	.48	268	.36	582	170	83	.5	410	7.7	90
WTD. AVG.	4.0	1.0	701	.95	--	422	277	.9	941	8.2	144
TIME WTD. AVG.	3.4	1.5	1030	1.40	--	610	416	1.3	1350	8.3	228
TOT. LOAD (TONS)	476	121	83100	--	--	--	--	--	--	--	17

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	13.0	17.0	9.0	6.0	10.0	20.0	22.0	23.0	33.0	28.0	30.0
2	25.0	13.0	16.0	9.0	6.0	9.0	18.0	25.0	25.0	30.0	28.0	30.0
3	25.0	11.0	17.0	10.0	6.0	7.0	16.0	20.0	25.0	32.0	30.0	30.0
4	24.0	12.0	13.0	9.0	5.0	6.0	16.0	25.0	25.0	30.0	31.0	31.0
5	23.0	13.0	14.0	7.0	7.0	13.0	17.0	27.0	26.0	30.0	29.0	31.0
6	25.0	14.0	12.0	8.0	6.0	13.0	14.0	28.0	28.0	31.0	30.0	32.0
7	28.0	15.0	11.0	4.0	4.0	11.0	16.0	28.0	30.0	32.0	28.0	33.0
8	14.0	17.0	13.0	4.0	4.0	13.0	17.0	27.0	28.0	32.0	29.0	32.0
9	18.0	15.0	14.0	5.0	3.0	14.0	19.0	18.0	25.0	31.0	29.0	31.0
10	15.0	15.0	16.0	5.0	6.0	15.0	24.0	22.0	27.0	32.0	30.0	29.0
11	17.0	14.0	4.0	7.0	9.0	16.0	26.0	26.0	28.0	32.0	31.0	30.0
12	15.0	13.0	9.0	5.0	9.0	17.0	29.0	21.0	28.0	32.0	32.0	28.0
13	17.0	11.0	10.0	6.0	8.0	19.0	21.0	21.0	29.0	32.0	28.0	28.0
14	17.0	9.0	10.0	7.0	11.0	20.0	22.0	22.0	30.0	30.0	25.0	29.0
15	16.0	9.0	9.0	7.0	11.0	16.0	27.0	23.0	31.0	31.0	26.0	29.0
16	15.0	9.0	10.0	6.0	13.0	16.0	22.0	27.0	31.0	33.0	26.0	26.0
17	14.0	11.0	9.0	7.0	16.0	18.0	22.0	24.0	31.0	33.0	30.0	26.0
18	16.0	13.0	12.0	6.0	16.0	16.0	21.0	26.0	31.0	30.0	31.0	16.0
19	15.0	14.0	10.0	6.0	16.0	13.0	24.0	27.0	32.0	27.0	31.0	15.0
20	19.0	13.0	12.0	6.0	14.0	14.0	22.0	23.0	30.0	29.0	30.0	17.0
21	20.0	14.0	9.0	8.0	9.0	17.0	24.0	24.0	26.0	30.0	30.0	19.0
22	22.0	11.0	12.0	11.0	5.0	14.0	25.0	23.0	27.0	27.0	32.0	16.0
23	22.0	8.0	9.0	9.0	6.0	14.0	20.0	27.0	31.0	30.0	31.0	17.0
24	19.0	6.0	8.0	9.0	9.0	11.0	24.0	24.0	31.0	30.0	31.0	18.0
25	---	8.0	---	11.0	14.0	12.0	20.0	26.0	31.0	31.0	30.0	21.0
26	22.0	11.0	7.0	10.0	---	15.0	24.0	29.0	31.0	30.0	32.0	28.0
27	18.0	12.0	8.0	10.0	15.0	19.0	24.0	25.0	31.0	30.0	31.0	25.0
28	18.0	11.0	7.0	9.0	11.0	19.0	23.0	23.0	31.0	28.0	33.0	24.0
29	16.0	14.0	8.0	10.0	---	17.0	19.0	24.0	30.0	28.0	30.0	25.0
30	17.0	17.0	9.0	10.0	---	19.0	19.0	22.0	30.0	27.0	26.0	25.0
31	16.0	---	10.0	9.0	---	20.0	---	26.0	---	28.0	24.0	---
MONTH	19.0	12.0	11.0	7.5	9.0	14.5	21.0	24.5	29.0	30.5	29.5	25.5

07329500 RUSH CREEK NEAR MAYSVILLE, OKLA.

LOCATION.--Lat 34°44'36", long 97°24'18", in SW1/4SW1/4 sec.10, T.3 N., R.2 W., Garvin County, at gaging station at bridge on State Highway 74, 2.8 mi (4.5 km) downstream from Panther Creek, 5.3 mi (8.5 km) south of Maysville, and at mile 14.2 (22.8 km).

DRAINAGE AREA.--206 sq mi (533.5 km²).

PERIOD OF RECORD.--Chemical analyses: Water year 1954 (partial-record station), October 1954 to September 1955, water years 1956-62 (partial-record station), October 1962 to September 1965, water year 1966 (partial-record station), Oct. 1966 to current year.
Water temperatures: October 1954 to September 1955.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
01-07	91	47	66	12	85	95	.00	351
08...	702	13	76	10	15	24	.00	138
09...	144	17	98	8	55	30	.70	222
10-12	48	51	130	14	86	110	.70	447
13-22	11	150	168	10	150	310	.30	877
23-26	25	95	188	10	140	200	.60	698
27-28	40	66	184	16	81	120	.90	476
29-31	13	120	178	0	150	240	.10	742
NOV.								
01-07	7.8	160	176	0	170	330	.50	996
08-11	6.0	210	188	0	190	440	.50	1250
12-20	9.6	170	176	0	180	350	1.1	1060
21-30	6.9	180	198	0	190	380	2.1	1120
DEC.								
01-10	5.4	210	194	0	210	440	.20	1300
11-20	7.3	190	186	0	200	380	.20	1240
21-31	7.6	190	186	0	200	380	.50	1210
JAN.								
01-04	11	160	176	0	140	310	1.0	894
05-06	8.5	250	144	0	200	520	1.0	1290
07-20	20	120	196	0	130	240	2.0	784
21-31	10	130	192	0	140	240	1.5	814
FEB.								
01-10	7.1	200	234	0	200	380	1.4	1140
11-17	8.4	190	222	0	190	380	1.3	1130
18-20	26	82	150	0	150	150	.40	588
21-22	80	59	108	0	67	110	.20	372
23-27	25	79	222	0	140	150	2.0	652
28...	13	110	118	2	170	220	1.8	706
MAR.								
01-09	19	98	164	0	240	180	1.2	794
10-16	8.0	150	210	0	240	300	.40	1030
17-31	4.1	240	282	0	230	480	.40	1290
APR.								
01-10	5.1	210	196	2	280	430	.40	1270
11-18	4.6	250	200	2	260	490	.70	1370
19-21	10	150	180	4	130	300	.40	812
22-23	56	110	124	0	74	230	.20	613
24-30	4.6	250	196	4	200	480	.20	1250
MAY								
01-08	3.1	260	244	0	210	550	.80	1410
09...	10	180	128	6	150	370	.40	924
10-20	2.5	310	316	0	230	580	.30	1540
21-22	.40	350	208	6	250	700	.80	1680
23-26	2.4	270	244	0	220	520	.80	1350
27...	27	88	156	0	61	180	.40	506
28-30	2.5	230	224	6	160	480	.20	1220
31...	1.1	200	152	8	70	410	2.7	938
JUNE								
01-06	29	98	156	0	230	190	.40	793
07-08	7.9	49	156	0	62	94	.40	420
09...	4.4	140	148	0	160	270	.80	817
10-11	9.1	65	148	10	71	130	.20	486
12-14	6.8	140	168	0	230	260	.40	898
15-20	3.5	270	174	6	340	470	.60	1380
21-23	14	140	110	12	81	270	.70	692
24-29	1.2	260	176	8	270	460	2.1	1300
AUG.								
09-11	21	110	110	14	140	190	.40	626
12...	18	51	118	2	42	89	.20	316
13-14	66	100	126	6	92	200	1.1	582
15-18	95	41	132	0	100	71	1.6	382
19-26	7.4	120	176	0	120	240	1.8	724
27-30	7.9	210	178	6	150	470	.40	1160
31...	8.7	120	134	2	150	250	.20	738

RED RIVER BASIN

07329500 RUSH CREEK NEAR MAYSVILLE, OKLA.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,680 mg/l May 21-22; minimum, 138 mg/l Oct. 8.
Hardness: Maximum, 680 mg/l May 21-22; minimum, 100 mg/l Oct. 8.
Specific conductance: Maximum daily, 3000 micromhos May 22; minimum daily, 281 micromhos Oct. 8.
Water temperature: Maximum, 40.0°C Sept. 12; minimum, 2.0°C Jan. 5-7.

Period of record.--Dissolved solids (1954-55, 1969-71): Maximum, 3,400 mg/l Oct. 2, 1954; minimum, 83 mg/l Sept. 18, 1971.
Hardness (1954-55, 1969-71): Maximum, 1,220 mg/l Oct. 2, 1954; minimum, 56 mg/l Sept. 18, 1971.
Specific conductance (1954-55, 1969-71): Maximum daily, 5,550 micromhos Oct. 2, 1954; minimum daily, 125 micromhos Sept. 18, 1971.
Water temperature (1954-55, 1969-71): Maximum, 36.5°C July 11, Aug. 8, 1955; minimum, freezing point on several days during December and January.

REMARKS.--No flow June 30-Aug. 8, Sept. 8-9, 15-17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-07	.48	86.2	200	126	1.4	604	8.8
08...	.19	262	100	21	.6	281	8.9
09...	.30	86.3	160	66	.6	376	8.5
10-12	.61	57.9	260	130	1.4	753	8.6
13-22	1.19	26.0	420	266	3.2	1520	8.5
23-26	.95	47.1	380	209	2.1	1170	8.5
27-28	.65	75.4	260	115	1.8	822	8.6
29-31	1.01	26.0	370	224	2.7	1260	8.2
NOV.							
01-07	1.35	21.0	440	296	3.3	1600	8.2
08-11	1.70	20.2	510	356	4.0	1980	8.3
12-20	1.44	27.4	460	316	3.4	1690	8.1
21-30	1.52	20.9	500	338	3.5	1810	8.2
DEC.							
01-10	1.77	19.0	520	361	4.0	2020	8.2
11-20	1.69	24.4	500	347	3.7	1850	8.2
21-31	1.65	24.8	490	337	3.7	1840	8.3
JAN.							
01-04	1.22	26.6	410	270	3.4	1520	8.2
05-06	1.75	29.6	520	400	4.8	2200	8.3
07-20	1.07	42.3	390	230	2.6	1300	8.3
21-31	1.11	22.0	380	220	2.9	1330	8.3
FEB.							
01-10	1.55	21.9	540	350	3.7	1930	8.1
11-17	1.54	25.6	520	340	3.6	1840	8.1
18-20	.80	41.3	310	190	2.0	1000	7.9
21-22	.51	80.4	180	91	1.9	656	8.0
23-27	.89	44.0	370	190	1.8	1080	8.0
28...	.96	24.8	360	260	2.5	1210	8.4
MAR.							
01-09	1.08	40.7	420	290	2.1	1230	8.2
10-16	1.40	22.2	520	350	2.9	1660	8.2
17-31	1.75	14.3	640	410	4.1	2240	8.2
APR.							
01-10	1.73	17.5	600	440	3.7	2120	8.4
11-18	1.86	17.0	610	440	4.4	2290	8.4
19-21	1.10	21.9	380	230	3.3	1470	8.5
22-23	.83	92.7	260	160	3.0	1080	8.3
24-30	1.70	15.5	540	370	4.7	2160	8.5
MAY							
01-08	1.92	11.8	620	420	4.5	2450	8.3
09...	1.26	24.9	400	290	3.9	1650	8.5
10-20	2.09	10.4	660	400	5.3	2680	8.3
21-22	2.28	1.81	680	500	5.8	2880	8.5
23-26	1.84	8.75	580	380	4.9	2330	8.2
27...	.69	36.9	250	120	2.4	922	8.3
28-30	1.66	8.23	520	330	4.4	2120	8.5
31...	1.28	2.79	350	210	4.7	1680	8.6
JUNE							
01-06	1.08	62.1	420	290	2.1	1240	8.2
07-08	.57	8.96	210	82	1.5	662	8.0
09...	1.11	9.73	370	250	3.2	1320	8.3
10-11	.66	11.9	250	110	1.8	800	8.7
12-14	1.22	16.5	430	290	2.9	1490	8.3
15-20	1.88	13.0	580	430	4.9	2200	8.5
21-23	.94	26.2	260	150	3.8	1160	8.7
24-29	1.77	4.22	520	380	5.0	2140	8.3
AUG.							
09-11	.85	35.5	280	170	2.9	1090	8.9
12...	.43	15.4	150	50	1.8	568	8.4
13-14	.79	104	280	170	2.6	1030	8.6
15-18	.52	98.0	230	120	1.2	643	8.3
19-26	.98	14.5	360	220	2.8	1270	8.3
27-30	1.58	24.7	510	350	4.0	2000	8.5
31...	1.00	17.2	360	250	2.8	1310	8.4

07329500 RUSH CREEK NEAR MAYSVILLE, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
SEP.								
01-04	3.4	200	146	4	180	390	.50	1070
05-07	.11	260	156	0	210	560	.50	1360
10-14	1.3	260	156	0	210	560	.50	1360
18-22	17	320	180	0	180	660	.40	1550
23-24	8.0	190	160	0	120	390	.40	966
25-28	67	37	140	0	90	62	.30	342
29-30	6.0	100	174	0	110	220	.50	688
WTD. AVG.	--	109	151	4	135	214	.76	699
TIME WTD. AVG.	17	175	188	2	182	348	.80	1020
TOT. LOAD (TONS)	--	1380	1920	47	1720	2730	9.7	6900

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	592	---	2050	1970	1960	1400	1920	2580	1710	---	---	1600
2	592	---	2110	1420	2060	1430	2000	2490	1110	---	---	1600
3	596	---	1930	1370	1900	1360	1950	2540	1110	---	---	1980
4	656	---	1830	1570	1920	1480	2090	2400	1270	---	---	1930
5	754	---	1900	2280	2000	1310	2080	2400	1270	---	---	2110
6	845	---	2140	2370	2070	1390	2080	2390	1490	---	---	2040
7	535	---	2070	1810	1840	1080	2180	2580	682	---	---	2200
8	281	---	2210	1660	1900	1160	2210	2540	655	---	---	---
9	376	2000	2110	1340	1970	1230	2330	1650	1360	---	994	---
10	608	1970	2300	1080	1060	1690	2360	2780	820	---	855	---
11	761	2120	2250	1200	1800	1610	2400	2720	818	---	1480	2700
12	863	1750	1620	1420	1980	1780	2400	2740	1440	---	576	2270
13	1200	1540	---	1460	1930	1750	2440	2360	1480	---	1050	2270
14	1240	1730	1820	1400	1850	1770	2430	2370	1640	---	1030	---
15	1450	1780	1890	1130	1800	1700	2620	2420	2030	---	617	---
16	1460	1550	1900	1040	1860	1680	2100	2430	2250	---	606	---
17	1480	1650	2070	1310	1920	1900	2120	2480	2440	---	606	---
18	1650	1720	1940	1340	1190	1930	2190	2740	2460	---	739	2800
19	1880	1770	1870	1400	1040	2210	1510	2740	2380	---	912	2870
20	1610	1860	1850	1400	1020	2140	1520	2680	2310	---	1390	2680
21	1660	1860	1900	1400	772	2180	---	2950	1170	---	1420	2310
22	1670	1710	2020	1280	743	2110	1150	3000	1160	---	1530	2340
23	1100	1870	1980	1380	1060	2080	1150	1990	1450	---	1400	1700
24	1170	1790	1880	1350	1190	2360	2110	2180	1840	---	1420	1690
25	1200	1610	1960	1400	1170	2410	2110	2640	1870	---	994	874
26	1270	1780	1870	1400	917	2320	2320	2640	2230	---	1010	846
27	758	1890	1840	1360	1180	2480	2290	926	2380	---	2100	676
28	907	1950	1880	1410	1350	2480	2210	2100	2380	---	2020	655
29	1250	1970	1900	1400	---	2460	2160	2100	2410	---	2020	1200
30	1290	1890	1940	1480	---	2430	2480	2360	---	---	2020	1180
31	1430	---	1970	1530	---	2470	---	1690	---	---	1320	---
MONTH	1070	---	1960	1460	1580	1860	2100	2410	1640	---	---	---

07329500 RUSH CREEK NEAR MAYSVILLE, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
SEP.							
01-04	1.46	9.82	440	310	4.1	1800	8.4
05-07	1.85	.49	540	410	4.9	2290	8.1
10-14	1.85	4.77	540	410	4.9	2290	8.1
18-22	2.11	71.1	590	440	5.7	2660	7.9
23-24	1.31	20.9	480	270	4.1	1680	8.3
25-28	.47	61.9	200	85	1.1	579	8.3
29-30	.94	11.1	340	200	2.4	1170	8.3
WTD. AVG.	.95	--	341	211	2.4	1170	8.4
TIME WTD. AVG.	1.39	--	462	305	3.4	1700	8.3
TOT. LOAD (TONS)	--	--	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	15.5	15.5	7.5	13.5	26.5	30.0	32.0	---	---	32.5
2	19.0	8.0	18.5	10.5	3.0	6.5	23.0	28.5	35.0	---	---	32.0
3	25.0	10.0	16.0	7.0	5.0	12.0	25.5	22.0	31.5	---	---	35.0
4	26.0	13.0	13.5	3.0	5.0	16.5	20.5	24.0	35.0	---	---	30.0
5	24.0	15.0	13.0	2.0	12.0	17.0	18.5	24.5	35.0	---	---	37.0
6	22.0	17.0	17.5	3.5	3.0	15.0	16.5	19.5	33.0	---	---	39.5
7	26.0	9.0	10.0	2.0	3.0	12.5	12.5	25.0	28.0	---	---	33.0
8	11.0	20.0	15.5	3.0	3.0	15.0	19.0	28.0	33.0	---	---	---
9	11.0	6.0	12.5	5.5	5.0	18.0	20.0	18.0	33.5	---	24.5	---
10	17.0	9.0	15.0	10.5	12.0	13.5	21.5	25.5	28.0	---	31.0	---
11	16.0	12.0	4.5	8.0	15.0	23.5	23.5	15.0	33.0	---	32.5	26.0
12	15.0	6.0	7.0	5.5	10.5	21.5	25.5	20.0	25.0	---	30.0	40.0
13	23.0	7.5	5.5	8.5	13.0	23.5	26.5	25.0	29.0	---	26.0	18.0
14	13.0	11.0	8.5	7.0	13.5	17.0	23.5	32.5	33.0	---	15.0	---
15	14.0	3.0	7.5	5.5	18.0	21.5	23.0	27.5	33.0	---	23.0	---
16	10.0	11.5	10.5	13.0	19.5	13.0	21.5	33.5	32.0	---	33.0	---
17	16.0	11.0	13.0	15.5	18.0	19.5	23.5	24.0	34.0	---	34.5	---
18	16.0	15.0	16.0	7.0	18.5	13.5	25.0	33.0	35.5	---	33.0	13.0
19	12.0	15.0	8.0	8.0	13.5	10.5	12.5	35.0	35.0	---	30.0	15.0
20	22.0	12.0	7.5	8.5	15.0	18.5	28.0	27.0	29.5	---	35.5	27.0
21	23.0	14.5	13.0	12.5	5.0	25.5	28.0	23.0	29.0	---	37.0	19.5
22	25.0	10.0	19.0	12.5	5.0	13.0	23.0	24.0	28.0	---	35.0	15.0
23	20.0	6.5	10.5	9.0	12.5	7.0	20.0	27.0	38.0	---	37.5	18.5
24	23.0	5.5	4.5	12.0	15.5	9.5	23.0	30.0	30.0	---	28.0	20.0
25	24.0	10.5	7.5	15.0	18.0	23.0	20.0	35.0	35.0	---	26.0	32.5
26	20.0	15.5	8.5	12.0	14.0	21.0	30.0	35.0	32.0	---	24.5	27.0
27	12.0	12.5	15.5	16.5	14.5	25.5	28.0	29.0	39.0	---	34.5	29.0
28	16.0	12.0	10.5	15.0	15.0	18.5	21.5	33.5	32.0	---	35.0	25.5
29	17.0	19.0	11.0	16.5	---	17.0	17.5	19.5	31.0	---	30.5	31.5
30	17.0	19.5	13.0	15.0	---	23.0	27.5	26.0	---	---	20.5	21.0
31	20.0	---	13.0	11.0	---	23.0	---	23.0	---	---	32.5	---
MONTH	18.5	11.5	11.5	9.5	11.0	17.0	22.5	26.5	32.5	---	---	---

07329700 WILDHORSE CREEK NEAR HOOVER, OKLA.

LOCATION.-- Lat 34°32'29", long 97°14'49", on west line of SW1/4 sec. 19, T.1 N., R.1 E., Garvin County, at gaging station at bridge on State Highway 19A, 1.5 mi. (2.4 km) north of Hoover, 1.8 mi. (2.9 km) downstream from Sandy Creek, and at mile 7.9 (12.7 km).

DRAINAGE AREA.--604 sq. mi. (1,564 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1969 to current year.
Water temperatures: October 1969 to current year.

EXTREMES, Current year.--Dissolved solids: Maximum, 1,390 mg/l Dec. 21; minimum, 103 mg/l Oct. 8.
Hardness: Maximum, 430 mg/l April 20, 21; minimum, 66 mg/l Oct. 8.
Specific conductance: Maximum daily, 2,380 micromhos Dec. 21; minimum daily, 162 micromhos Oct. 8.
Water temperatures: Maximum, 37.0°C July 9; minimum 1.0°C Jan. 8, Feb. 8.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01-07	29	18	104	0	20	24	.10	157
08...	e560	7.3	80	2	8.8	5.0	.10	103
09-16	521	12	108	0	6.8	20	.10	146
17-22	91	30	194	0	20	47	1.0	282
23...	1920	15	100	0	9.1	21	3.0	146
24-31	322	28	150	0	16	47	1.2	236
NOV.								
01-02	70	44	142	0	27	82	.30	314
03-10	38	57	162	0	41	110	.20	407
11-20	36	67	234	0	46	130	.20	515
21-30	21	64	208	0	42	120	.70	489
DEC.								
01-03	17	79	168	0	52	140	.20	501
04-09	16	110	192	0	63	200	.70	610
10-20	12	140	242	0	72	270	.40	767
21...	12	280	148	0	92	580	.30	1390
22-31	11	160	186	0	77	310	.80	854
JAN.								
01-02	10	140	186	0	82	260	.40	826
03-07	115	65	180	4	29	130	.00	450
08-14	60	94	188	0	37	190	.70	586
15-17	42	46	194	0	30	85	1.2	387
18-31	20	92	184	0	52	180	1.0	608
FEB.								
01-10	16	120	190	0	65	250	.50	729
11-19	15	130	228	0	75	260	.40	751
20...	16	250	144	0	95	530	.30	1130
21...	73	130	138	0	65	260	1.6	652
22-24	114	45	166	8	28	92	1.6	381
25-28	35	65	198	0	35	130	1.0	454
MAR.								
01-10	26	89	150	0	45	180	.20	508
11-20	18	81	180	0	52	150	.00	499
21-31	13	96	170	0	67	180	.20	566
APR.								
01-10	8.3	94	196	2	72	160	.60	539
11-19	7.6	120	260	0	90	220	.10	714
20-21	16	200	184	4	110	420	.60	982
22...	163	100	160	6	48	200	4.4	544
23...	335	57	140	4	30	120	4.2	378
24-30	25	110	226	0	54	220	2.0	639
MAY								
01-06	36	130	230	0	66	240	.40	736
07...	245	34	114	4	23	62	.20	247
08-10	83	59	172	6	36	90	1.9	357
11...	219	17	104	4	17	22	.10	170
12-14	21	49	184	8	32	94	1.4	374
15-23	50	98	230	0	64	170	1.1	556
24-26	115	51	156	0	29	110	1.4	356
27...	327	42	126	4	21	78	2.1	290
28-31	50	69	190	6	35	140	2.3	478
JUNE								
01-04	170	37	40	24	21	70	.50	239
05-11	18	100	268	0	58	190	.60	635
12...	22	230	144	0	77	460	1.4	1010
13...	42	75	206	10	61	130	1.9	503
14-15	19	59	184	10	40	100	1.9	409
16-22	12	110	200	0	63	190	1.3	630
23-24	28	31	160	0	33	83	3.1	271
25-30	4.4	66	250	0	51	100	1.1	464
JULY								
01-02	2.3	75	162	0	65	110	.40	408
03...	30	28	128	0	21	36	.30	203
04-10	2.4	88	206	0	31	180	5.7	537
11-20	.32	86	234	0	30	160	.90	535
21-23	3.4	65	236	0	25	110	.40	448
24-28	7.1	140	172	0	67	250	4.1	721
29-30	4.1	66	176	0	61	71	1.5	355
31...	.80	96	142	6	89	120	.90	472

07329700 WILDHORSE CREEK NEAR HOOVER, OKLA.

Period of record.--Dissolved solids (1970-71): Maximum, 1,390 mg/1 Dec. 21, 1971; minimum, 103 mg/1 Oct. 8, 1971.
Hardness: Maximum, 430 mg/1 April 20,21, 1971, minimum, 66 mg/1 Oct. 8, 1971.
Specific conductance (1970-71): Maximum daily, 2,380 micromhos Dec. 21, 1971; minimum daily, 162 micromhosOct. 8, 1971.
Water temperatures (1970-71): 37.0°C Aug. 6, 1970, July 9, 1971; minimum, freezing point on Dec/ 29,30, 1970.

REMARKS. -- Miscellaneous samples of chemical data published for water years 1951-58, 1962-63.
No flow Sept. 4-6, 1971.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.							
01-07	.21	12.3	100	15	.8	284	7.7
08...	.14	1820	66	0	.4	162	8.4
09-16	.20	205	92	3	.5	253	8.7
17-22	.38	69.3	190	31	.9	484	8.2
23...	.20	757	96	14	.7	253	8.0
24-31	.32	205	150	27	1.0	419	7.8
NOV.							
01-02	.43	59.3	160	44	1.5	539	8.2
03-10	.55	41.8	190	57	1.8	668	8.1
11-20	.70	50.0	270	78	1.8	849	8.1
21-30	.67	27.7	240	69	1.8	779	8.0
DEC.							
01-03	.68	23.0	220	82	2.3	812	8.3
04-09	.83	26.4	270	110	2.9	1020	8.1
10-20	1.04	24.9	360	160	3.2	1330	8.0
21...	1.89	45.0	420	300	5.9	2380	8.3
22-31	1.16	25.4	330	180	3.8	1400	8.2
JAN.							
01-02	1.12	22.3	306	150	3.5	1280	8.3
03-07	.61	140	220	66	1.9	759	8.4
08-14	.80	94.9	260	110	2.5	959	8.3
15-17	.53	43.9	220	61	1.3	627	8.3
18-31	.83	32.8	260	110	2.5	959	8.2
FEB.							
01-10	.99	31.5	300	140	3.0	1200	8.2
11-19	1.02	30.4	340	150	3.1	1310	8.1
20...	1.54	48.8	420	300	5.3	2040	8.3
21...	.89	129	260	150	3.5	1160	8.3
22-24	.52	117	230	64	1.3	648	8.5
25-28	.62	42.9	240	78	1.8	785	8.2
MAR.							
01-10	.69	35.7	230	110	2.6	894	8.3
11-20	.68	24.3	240	92	2.3	855	8.3
21-31	.77	19.9	250	110	2.6	955	8.3
APR.							
01-10	.73	12.1	270	110	2.5	964	8.4
11-19	.97	14.7	360	150	2.8	1290	8.1
20-21	1.34	42.4	430	270	4.2	1800	8.4
22...	.74	239	270	130	2.6	1020	8.5
23...	.51	342	200	72	1.8	668	8.5
24-30	.87	43.1	310	130	2.7	1160	8.2
MAY							
01-06	1.00	71.5	320	130	3.2	1280	8.2
07...	.34	163	130	30	1.3	438	8.4
08-10	.49	80.0	200	49	1.5	630	8.5
11...	.23	101	100	8	.7	284	8.6
12-14	.51	21.2	220	56	1.4	655	8.5
15-23	.76	87.1	290	100	2.5	1000	8.3
24-26	.48	111	200	72	1.6	650	8.1
27...	.39	256	150	40	1.5	498	8.5
28-31	.65	64.5	250	84	1.9	823	8.5
JUNE							
01-04	.33	110	110	37	1.5	396	9.5
05-11	.86	30.9	320	100	2.4	1080	8.3
12...	1.37	60.0	370	250	5.2	1770	8.3
13...	.68	57.0	260	74	2.0	848	8.7
14-15	.56	21.0	220	52	1.7	696	8.6
16-22	.86	20.4	270	110	2.9	1070	8.3
23-24	.37	20.5	160	29	1.1	438	8.0
25-30	.63	5.51	260	55	1.8	776	8.2
JULY							
01-02	.55	2.53	200	67	2.3	708	8.3
03...	.28	16.4	120	15	1.1	339	8.3
04-10	.73	3.48	250	81	2.4	912	8.2
11-20	.73	.46	270	78	2.3	900	8.2
21-23	.61	4.11	240	46	1.8	704	8.2
24-28	.98	13.8	260	120	3.8	1180	8.2
29-30	.48	3.93	160	16	2.3	604	8.2
31...	.64	1.12	180	54	3.1	780	8.5

07329700 WILDHORSE CREEK NEAR HOOVER, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
AUG.								
01-06	17	99	220	0	71	150	9.5	526
07-08	18	34	90	14	31	47	1.3	211
09-11	1.6	55	190	0	37	78	2.0	349
12-14	38	35	132	0	28	56	4.7	249
15-17	124	15	112	0	15	22	8.4	159
18-19	6.0	28	152	4	26	39	2.6	239
20-26	3.1	59	224	2	39	88	6.0	400
27-28	4.2	32	148	0	23	47	8.0	249
29-31	.28	60	184	4	28	99	5.8	374
SEP.								
01-03	.02	84	214	0	39	140	.30	499
11-17	.07	83	206	0	25	150	.50	481
18-25	.75	58	244	0	31	79	1.2	378
26-30	.51	140	254	0	90	200	1.0	682
WTD. AVG.	--	35	129	2	22	63	.96	262
TIME WTD. AVG.	71	84	192	1	49	156	1.3	516
TOT. LOAD (TONS)	--	2410	8830	121	1480	4310	66	18000

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444	621	942	1330	1060	970	1100	1540	420	708	950	760
2	463	659	773	1410	1100	960	1060	1220	554	---	884	870
3	428	719	883	861	1150	939	1020	1180	379	336	951	851
4	453	747	938	770	1160	1100	984	1210	624	825	976	---
5	425	780	1060	861	1720	1080	935	1280	857	872	986	---
6	355	775	1100	863	1510	1030	1010	1310	912	970	887	---
7	499	796	1110	628	1400	1020	1000	438	1030	945	386	930
8	162	833	1100	1080	1320	932	1000	555	1120	1010	439	902
9	260	873	1300	819	1090	930	1090	562	1190	910	556	829
10	273	882	1600	---	1250	942	1120	757	1270	973	625	853
11	282	865	1310	---	1260	968	1100	284	1340	943	654	731
12	276	884	1380	967	1290	942	1230	586	1770	920	374	841
13	276	906	1330	964	1250	910	1270	686	890	890	526	839
14	297	1110	1370	1350	1310	904	1260	702	639	981	418	828
15	309	1010	1370	618	1470	965	1220	960	757	844	243	905
16	345	1010	1250	664	1420	920	1140	1000	841	917	292	692
17	412	847	1320	720	1370	883	1460	1060	900	943	309	876
18	433	858	1360	822	1540	942	1450	1120	981	955	362	583
19	563	862	1340	875	1350	852	1660	1150	997	958	463	668
20	---	911	1610	921	2180	920	1860	1140	1050	903	547	630
21	498	866	2380	1000	1350	864	2060	1080	1290	765	604	520
22	508	868	1530	1010	605	937	1030	1120	1260	867	665	630
23	253	877	1540	1030	607	967	668	1190	419	628	721	640
24	414	826	1420	1120	744	981	1020	780	481	1400	718	729
25	372	784	1390	1080	796	1050	1110	596	617	---	723	880
26	284	840	1810	1120	845	1060	1210	576	718	1110	810	1120
27	363	---	1830	1170	834	1150	1240	498	787	1130	383	1280
28	379	878	1650	1150	897	1160	1290	706	846	1020	467	1150
29	---	1060	1440	1170	---	1220	1380	720	874	558	618	1160
30	520	1100	1420	1150	---	1200	1200	839	874	650	668	1140
31	566	---	1410	---	---	1120	---	1040	---	780	716	---
MONTH	383	864	1360	983	1210	994	1210	899	890	887	610	845

07329700 WILDHORSE CREEK NEAR HOOVER, OKLA.--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
AUG.							
01-06	.72	24.1	250	70	2.7	922	7.8
07-08	.29	10.3	120	23	1.4	384	9.0
09-11	.47	1.51	190	34	1.7	610	8.3
12-14	.34	25.5	140	32	1.3	443	8.0
15-17	.22	53.2	110	18	.6	285	8.0
18-19	.33	3.87	150	19	1.0	416	8.5
20-26	.54	3.35	220	33	1.7	695	8.4
27-28	.34	2.82	140	19	1.2	432	7.9
29-31	.51	.28	190	32	1.9	661	6.5
SEP.							
01-03	.68	.03	230	54	2.4	839	7.8
11-17	.65	.09	230	61	2.4	829	7.8
18-25	.51	.77	220	20	1.7	670	7.2
26-30	.93	.94	280	72	3.6	1200	7.8
WTD. AVG.	.36	--	142	35	1.1	448	8.3
TIME WTD. AVG.	.70	--	246	87	2.3	880	8.2
TOT. LOAD (TONS)	--	--	--	--	--	--	--

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	12.0	17.5	5.5	9.0	10.0	15.0	24.0	21.0	28.5	25.0	33.0
2	20.0	14.0	14.0	11.0	4.5	6.0	16.0	28.0	23.5	33.5	31.0	25.0
3	25.5	10.5	15.5	11.0	5.0	5.0	17.0	23.5	25.0	25.0	23.0	25.0
4	24.0	12.0	12.0	5.0	10.0	8.0	18.0	24.0	26.0	35.0	32.0	24.0
5	25.5	13.5	15.0	1.5	5.0	9.0	17.0	29.0	31.0	25.0	23.0	33.0
6	26.0	16.0	11.5	2.0	4.0	10.0	22.0	20.0	24.5	28.0	23.0	28.0
7	26.5	13.0	13.0	3.0	3.0	8.0	22.0	16.0	28.0	36.0	23.0	28.0
8	16.0	19.0	13.0	1.0	1.0	9.0	22.0	20.0	26.5	26.0	26.0	26.0
9	14.0	15.0	13.0	4.0	2.0	14.0	17.0	18.0	30.0	37.0	31.0	26.0
10	17.0	16.5	11.0	---	3.5	10.5	20.0	23.5	29.0	30.0	21.0	28.0
11	17.0	12.0	8.0	---	7.0	12.0	26.0	22.0	31.5	28.0	22.0	33.0
12	17.0	12.0	10.0	6.0	8.0	13.0	21.0	18.0	30.0	30.5	26.0	24.0
13	18.0	10.0	8.0	8.0	6.0	18.0	19.0	23.0	26.0	29.0	24.0	25.0
14	16.0	8.0	10.5	5.5	8.0	16.0	---	21.0	27.0	35.0	24.0	24.0
15	15.0	7.0	8.0	5.0	8.0	14.0	17.0	26.0	34.0	35.5	23.0	26.0
16	15.0	10.0	9.0	5.0	11.0	14.0	22.5	21.5	30.0	29.0	31.0	29.0
17	14.0	10.0	14.0	6.5	12.5	14.0	19.0	27.0	27.0	28.5	29.0	21.0
18	15.0	13.5	11.0	6.5	14.0	15.0	22.5	20.0	33.0	26.0	27.0	16.0
19	18.0	14.5	8.5	4.0	12.0	9.0	20.0	20.0	33.0	24.0	32.0	15.0
20	18.0	12.0	7.5	4.5	11.0	12.0	18.0	19.0	28.0	25.0	27.0	25.0
21	21.0	16.0	10.5	8.5	8.0	12.0	22.0	22.0	29.0	26.0	29.0	25.0
22	24.5	8.0	12.0	9.0	3.0	13.0	18.0	22.5	30.0	26.0	29.0	18.0
23	18.0	11.0	7.0	8.0	5.0	10.5	15.0	24.0	32.0	25.0	30.0	18.0
24	19.0	8.0	5.0	---	9.0	9.0	16.0	20.0	27.0	29.0	24.0	18.0
25	20.0	6.0	3.0	8.5	14.5	9.0	18.0	21.0	33.0	27.0	32.0	20.0
26	20.0	12.5	9.0	8.0	12.0	10.5	19.0	23.0	28.0	29.0	26.0	22.0
27	15.0	12.0	5.0	6.0	11.5	16.0	20.5	23.5	30.0	32.0	26.0	25.0
28	14.0	10.5	7.0	7.0	9.0	18.0	21.0	25.0	26.0	30.0	25.0	28.0
29	13.5	17.0	7.5	9.0	---	13.0	16.5	21.0	26.0	26.0	32.0	30.0
30	13.0	17.0	13.0	15.0	---	15.0	20.0	18.0	34.0	24.0	30.0	23.0
31	13.5	---	11.0	6.0	---	15.0	---	26.0	---	24.0	34.0	---
MONTH	18.5	12.5	10.5	7.0	7.5	12.0	19.0	22.0	28.5	28.5	27.0	24.5

07331000 WASHITA RIVER NEAR DURWOOD, OKLA.

LOCATION.--Lat 34°14'03", long 96°58'32", in NW1/4SW1/4 sec.3, T.4 S., R.3 E., Carter County, at gaging station at bridge on U.S. Highway 177, 1.3 mi (2.1 km) downstream from Caddo Creek, 4.0 mi (6.4 km) north of Durwood, and at mile 63.4 (102.0 km).

DRAINAGE AREA.--7,202 sq mi (18,653.2 km²).

PERIOD OF RECORD.--Chemical analyses: May 1944 to current year.
Water temperatures: April 1947 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SODIUM (NA) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT.								
01-04	1270	27	160	0	72	36	1.9	332
05-07	876	38	186	4	110	53	1.9	449
08...	17900	8.2	130	0	26	9.0	5.0	187
09...	42300	7.8	108	0	9.6	6.0	3.2	139
10-11	10900	12	128	0	18	11	1.6	177
12-22	3600	18	150	0	20	25	.90	214
23-28	4340	15	134	0	20	19	1.5	194
29-31	1350	26	182	4	40	34	1.3	291
NOV.								
01-02	698	29	186	2	43	38	.10	326
03-09	431	43	264	0	83	58	2.2	471
10-21	420	54	252	0	120	78	2.0	556
22-30	250	63	278	0	150	88	1.3	596
DEC.								
01-10	217	73	196	0	200	100	1.7	663
11-20	258	74	214	0	200	100	1.4	700
21-31	216	86	258	0	260	120	1.6	818
JAN.								
01-04	488	73	102	0	230	100	.10	552
05-08	708	41	200	0	61	57	1.7	347
09-14	402	60	242	0	160	84	3.6	554
15-17	552	54	200	6	120	73	3.9	477
18-31	269	71	140	0	240	97	.10	613
FEB.								
01-10	247	71	282	0	210	100	2.6	741
11-23	295	88	258	0	270	120	3.6	875
24-28	590	53	208	6	140	75	4.3	549
MAR.								
01-10	348	65	238	2	200	93	2.5	642
11-20	253	75	224	0	280	100	1.4	746
21-31	178	82	264	0	290	110	.80	826
APR.								
01-12	129	90	280	0	230	120	1.0	848
13-23	136	87	212	0	200	130	2.6	695
24-27	674	49	174	12	53	69	2.2	361
28-30	184	60	194	30	63	88	.60	455
MAY								
01-07	131	78	228	36	98	120	.20	578
09-13	350	56	208	6	70	86	3.3	433
14-15	145	49	208	10	61	71	2.2	410
16-23	87	76	228	6	110	110	3.1	564
24-25	700	35	156	8	46	50	2.6	291
26-31	386	55	172	0	37	86	3.1	360
JUNE								
01...	555	39	174	2	38	47	.40	288
02...	851	66	172	8	69	110	3.8	477
03...	2330	22	144	4	29	22	4.6	237
04-05	3990	22	54	6	65	25	.20	190
06-16	1000	26	124	10	49	30	1.8	266
17-30	324	35	170	0	160	38	3.9	482
JULY								
01-03	260	17	152	0	37	16	2.9	231
04-10	273	30	210	0	120	44	3.9	469
11-23	96	31	168	0	210	34	2.9	507
24-26	102	31	212	6	100	34	2.9	411
27-28	76	22	176	0	48	25	1.5	275
29-31	61	53	230	0	87	74	5.1	483
AUG.								
01-09	90	58	184	16	120	83	1.0	498
10-16	368	45	142	0	100	57	3.6	381
17-19	509	20	126	0	63	23	3.7	248
20-22	232	29	94	4	160	33	.20	372
23-29	133	48	148	0	250	38	2.3	584
30-31	102	46	132	0	150	58	4.0	445
SEP.								
01-02	62	43	176	0	160	57	3.3	485
03-16	60	66	192	0	250	80	3.5	690
17...	76	50	168	4	190	53	4.5	532
18-20	90	62	158	0	310	68	2.5	738
21...	271	38	174	0	110	42	6.1	395
22-23	234	30	160	0	82	30	7.2	318
24...	475	43	142	0	160	52	8.4	475
25-30	1070	24	136	0	79	25	7.3	306
WTD. AVG.	--	28	153	1	66	37	2.3	309
TIME WTD. AVG.	740	56	199	2	157	75	2.3	545
TOT. LOAD (TONS)	--	20500	111000	978	48200	26600	1700	225000

07331000 WASHITA RIVER NEAR DURWOOD, OKLA.

EXTREMES, Current year.--Dissolved solids; Maximum, 875 mg/l Feb. 11-23; minimum, 139 mg/l Oct. 9.
Hardness: Maximum, 480 mg/l Feb. 11-23; minimum, 94 mg/l October 9.
Specific conductance: Maximum daily, 1,430 micromhos Nov. 30; minimum daily, 215 micromhos Oct. 9.
Water temperatures: Maximum, 35.0°C July 6, 7, 8, 10, 11, 14; minimum, freezing point on Sept. 6.

Period of record.--Dissolved solids (1944-49, 1950-1971): Maximum, 1,470 mg/l June 15-17, 1966; minimum, 70 mg/l Nov. 2, 1951.
Hardness (1944-49, 1950-71): Maximum, 860 mg/l June 15-17, 1966; minimum, 41 mg/l Nov. 2, 1951.
Specific conductance (1947-71): Maximum daily, 2,120 micromhos Nov. 15, 1963; minimum daily, 94.9 micromhos Nov. 2, 1951.
Water temperatures (1947-1971): Maximum, 37.0°C July 8, 1964; minimum, freezing point on several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
UCT.							
01-04	.45	1140	200	69	.8	515	8.3
05-07	.61	1060	260	101	1.0	667	8.4
08...	.25	9040	130	23	.3	284	8.2
09...	.19	15900	94	5	.4	215	8.1
10-11	.24	5210	120	15	.5	282	8.2
12-22	.29	2080	140	17	.7	352	8.3
23-28	.26	2270	130	20	.6	314	8.2
29-31	.40	1060	190	34	.8	470	8.4
NOV.							
01-02	.44	614	190	34	.9	497	8.4
03-09	.64	548	290	73	1.1	734	8.3
10-21	.76	630	320	113	1.3	847	8.3
22-30	.81	402	380	152	1.4	981	8.2
DEC.							
01-10	.90	388	350	189	1.7	1000	8.1
11-20	.95	488	380	204	1.7	1040	8.1
21-31	1.11	477	460	248	1.7	1210	8.1
JAN.							
01-04	.75	727	310	230	1.8	918	8.3
05-08	.47	663	220	56	1.2	597	8.3
09-14	.75	601	360	160	1.4	906	8.3
15-17	.65	711	280	110	1.4	764	8.4
18-31	.83	445	340	230	1.7	966	8.2
FEB.							
01-10	1.01	494	450	220	1.5	1110	8.3
11-23	1.19	697	480	270	1.7	1250	8.3
24-28	.75	875	320	140	1.3	830	8.5
MAR.							
01-10	.87	603	390	190	1.4	1000	8.4
11-20	1.01	510	460	280	1.5	1140	8.3
21-31	1.12	397	500	280	1.6	1220	8.3
APR.							
01-12	1.15	295	440	210	1.9	1260	8.3
13-23	.95	255	360	190	2.0	1070	8.3
24-27	.49	657	210	47	1.5	581	8.7
28-30	.62	226	260	51	1.6	706	8.9
MAY							
01-07	.79	204	360	110	1.8	939	9.0
09-13	.59	409	250	69	1.5	722	8.5
14-15	.56	161	260	73	1.3	670	8.6
16-23	.77	132	320	120	1.8	901	8.5
24-25	.40	550	170	35	1.2	486	8.5
26-31	.49	375	180	39	1.8	612	8.1
JUNE							
01...	.39	432	160	14	1.3	487	8.4
02...	.65	1100	230	76	1.9	773	8.5
03...	.32	1490	140	15	.8	372	8.5
04-05	.26	2050	100	46	1.0	324	8.9
06-16	.36	718	150	32	.9	409	8.8
17-30	.66	422	290	150	.9	704	7.9
JULY							
01-03	.31	162	150	25	.6	374	8.3
04-10	.64	346	280	110	.8	708	8.1
11-23	.69	131	340	200	.7	765	8.3
24-26	.56	113	270	86	.8	632	8.5
27-28	.37	56.4	180	36	.7	448	8.2
29-31	.66	79.5	260	71	1.4	759	7.9
AUG.							
01-09	.68	121	290	110	1.5	783	8.8
10-16	.52	379	200	84	1.4	609	7.7
17-19	.34	341	160	57	.7	405	8.0
20-22	.51	233	230	150	.8	581	8.6
23-29	.79	210	340	220	1.1	858	7.9
30-31	.61	123	240	130	1.3	695	7.9
SEP.							
01-02	.66	81.2	290	150	1.1	743	7.9
03-16	.94	112	380	220	1.5	1000	7.9
17...	.72	109	300	160	1.3	798	8.4
18-20	1.00	179	420	290	1.3	1050	7.7
21...	.54	289	230	87	1.1	621	8.1
22-23	.43	201	190	59	.9	505	7.9
24...	.65	609	270	150	1.1	718	8.0
25-30	.42	884	180	68	.8	464	8.3
WTD. AVG.	.42	--	188	61	.8	483	8.3
TIME WTD. AVG.	.74	--	316	149	1.3	834	8.3
TOT. LOAD (TONS)	--	--	--	--	--	--	--

07331000 WASHITA RIVER NEAR DURWOOD, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT.									
21...	135	22	170	0	28	30	.32	1.4	.12
NOV.									
17...	449	62	314	0	150	91	.20	1.0	.14
DEC.									
09...	258	67	338	4	200	96	.10	.40	.13
JAN.									
29...	254	73	356	0	260	99	.40	2.0	.24
FEB.									
24...	675	56	182	0	110	84	.30	1.2	.10
MAR.									
02...	363	55	280	2	170	73	.10	.50	.21
APR.									
14...	84	86	366	0	210	120	.05	.20	.29
MAY									
11...	725	33	162	0	40	47	.80	3.4	.10
JUNE									
09...	1060	22	142	0	31	24	.30	1.5	.08
JULY									
20...	45	31	214	0	160	38	.00	.00	.07
AUG.									
25...	142	52	144	0	260	46	.20	1.1	.48
SEP.									
28...	320	14	104	0	50	7.2	.70	3.0	.10

07331000 WASHITA RIVER NEAR DURWOOD, OKLA.--Continued

CHEMICAL ANALYSES OF ADDITIONAL SAMPLES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
OCT.									
21...	.38	238	.32	86.8	164	25	.7	385	8.2
NOV.									
17...	.42	654	.89	793	410	152	1.3	1000	8.1
DEC.									
09...	.40	724	.98	504	480	196	1.3	1110	8.3
JAN.									
29...	.74	843	1.15	578	550	258	1.4	1250	8.2
FEB.									
24...	.30	453	.62	826	270	121	1.5	754	8.0
MAR.									
02...	.64	582	.79	570	375	142	1.2	939	8.4
APR.									
14...	.89	806	1.10	183	510	210	1.7	1280	8.2
MAY									
11...	.32	282	.38	552	170	37	1.1	466	7.6
JUNE									
09...	.24	216	.29	618	130	14	.8	352	8.0
JULY									
20...	.22	486	.66	59.0	320	144	.8	724	8.1
AUG.									
25...	1.5	592	.81	227	340	222	1.2	869	7.9
SEP.									
28...	.30	217	.30	187	120	35	.6	324	7.9

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT.					
21...	440	8.3	17.5	8.8	98
NOV.					
17...	950	8.5	14.0	10.6	109
DEC.					
09...	1200	8.5	12.5	11.6	115
JAN.					
29...	1170	8.3	7.0	11.4	107
FEB.					
24...	900	--	7.5	11.0	96
MAR.					
02...	900	8.5	6.0	11.8	99
APR.					
14...	1100	8.5	26.5	10.4	136
MAY					
11...	--	7.6	18.5	6.5	73
JUNE					
09...	320	7.7	26.5	7.5	102
JULY					
20...	750	8.1	28.5	8.0	107
AUG.					
25...	750	8.0	27.5	9.6	126
SEP.					
28...	260	8.1	25.5	7.6	97

RED RIVER BASIN

07331000 WASHITA RIVER NEAR DURWOOD, OKLA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C), WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	441	519	1160	1170	1020	853	1260	843	483	---	828	715
2	478	506	1160	---	1110	906	1350	950	765	384	934	825
3	513	640	1190	1160	1040	897	1280	923	375	351	924	924
4	524	690	1160	948	---	981	1280	1020	553	572	787	983
5	632	---	1200	585	1140	1050	1260	1040	326	688	764	1050
6	640	791	1170	523	1130	1030	1230	1060	408	709	756	1060
7	706	812	1220	577	1150	1090	1300	1090	603	721	748	1000
8	284	---	---	687	1100	1050	1230	---	351	787	835	861
9	215	826	1090	863	1100	890	1300	599	355	843	768	905
10	275	917	1090	886	1250	1130	1220	667	372	630	575	1020
11	263	922	1250	963	1130	1080	1220	598	430	705	599	1050
12	302	824	1120	953	1280	1060	1240	829	364	742	679	1070
13	308	826	1160	1090	1310	1080	1230	916	408	787	699	1070
14	300	843	1160	1040	1350	1130	1160	658	395	836	533	1040
15	313	912	1110	693	1320	1080	1180	695	460	817	617	1000
16	316	910	1180	748	1360	1110	1140	850	468	772	570	970
17	330	915	1190	857	1360	1260	1170	965	558	754	355	795
18	342	1000	1180	971	1360	1280	1170	1010	589	812	411	1130
19	339	885	1190	1040	1390	1290	1210	1050	798	733	446	994
20	384	835	1320	1110	1380	1300	1200	1020	742	734	556	1020
21	334	872	1350	1100	1340	1230	1220	1070	641	751	628	618
22	473	941	1320	1130	1350	1250	1220	1090	718	---	703	575
23	277	---	1300	1170	1020	1260	1160	1110	828	787	798	422
24	298	1030	1380	1280	773	1220	627	533	730	630	733	714
25	298	1010	---	1280	862	1210	658	436	892	---	869	405
26	283	1070	1380	1330	850	1250	512	588	685	641	1020	592
27	274	1030	1330	1310	873	1250	589	623	656	449	889	358
28	345	1050	1330	1310	---	1290	716	701	659	441	792	504
29	441	1090	1340	1200	---	1250	800	530	636	690	992	442
30	440	1150	1330	1030	---	1260	780	624	602	731	768	442
31	519	---	1430	1090	---	1280	---	602	---	840	618	---
MONTH	383	885	1230	1000	1170	1140	1100	823	562	691	716	818

07331000 WASHITA RIVER NEAR DURWOOD, OKLA.--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971
(ONCE-DAILY MEASUREMENT)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	15.0	20.0	10.0	9.0	15.0	20.0	26.0	27.0	---	26.0	31.0
2	22.0	14.0	20.0	---	8.0	10.0	20.0	28.0	30.0	31.0	25.0	31.0
3	25.0	15.0	20.0	6.0	9.0	6.0	20.0	18.0	26.0	27.0	25.0	32.0
4	24.0	14.0	15.0	8.0	---	5.0	15.0	26.0	26.0	34.0	32.0	32.0
5	24.0	15.0	15.0	8.0	12.0	17.0	16.0	26.0	25.0	32.0	27.0	33.0
6	24.0	15.0	16.0	6.0	6.0	12.0	19.0	27.0	27.0	35.0	26.0	35.0
7	26.0	18.0	15.0	5.0	5.0	6.0	21.0	26.0	29.0	35.0	25.0	33.0
8	19.0	---	---	6.0	0.0	15.0	---	---	28.0	35.0	30.0	32.0
9	16.0	16.0	17.0	9.0	8.0	15.0	17.0	20.0	29.0	33.0	32.0	29.0
10	16.0	18.0	19.0	11.0	15.0	17.0	23.0	25.0	30.0	35.0	30.0	32.0
11	19.0	15.0	10.0	11.0	12.0	17.0	25.0	25.0	30.0	35.0	29.0	33.0
12	22.0	16.0	14.0	11.0	11.0	19.0	24.0	22.0	31.0	33.0	29.0	32.0
13	21.0	14.0	15.0	11.0	14.0	24.0	19.0	27.0	29.0	31.0	27.0	32.0
14	20.0	11.0	10.0	12.0	14.0	19.0	23.0	26.0	29.0	35.0	25.0	30.0
15	20.0	10.0	12.0	10.0	15.0	20.0	25.0	25.0	30.0	29.0	27.0	30.0
16	20.0	12.0	16.0	13.0	15.0	19.0	23.0	28.0	32.0	30.0	29.0	28.0
17	19.0	15.0	15.0	12.0	16.0	19.0	24.0	27.0	32.0	31.0	28.0	21.0
18	21.0	16.0	15.0	13.0	15.0	16.0	23.0	28.0	32.0	34.0	31.0	22.0
19	20.0	15.0	13.0	6.0	18.0	17.0	25.0	26.0	32.0	33.0	27.0	20.0
20	19.0	16.0	15.0	10.0	18.0	17.0	21.0	26.0	29.0	31.0	33.0	23.0
21	22.0	18.0	13.0	9.0	11.0	16.0	21.0	28.0	28.0	29.0	32.0	25.0
22	23.0	15.0	13.0	12.0	7.0	18.0	25.0	28.0	33.0	---	32.0	20.0
23	19.0	---	13.0	9.0	14.0	13.0	24.0	26.0	33.0	25.0	33.0	20.0
24	21.0	10.0	15.0	13.0	17.0	15.0	24.0	25.0	33.0	25.0	28.0	22.0
25	21.0	12.0	---	17.0	17.0	17.0	24.0	27.0	32.0	---	27.0	22.0
26	22.0	12.0	10.0	12.0	16.0	18.0	25.0	28.0	28.0	29.0	27.0	27.0
27	18.0	16.0	11.0	10.0	12.0	19.0	26.0	29.0	34.0	30.0	32.0	27.0
28	18.0	16.0	14.0	13.0	---	17.0	24.0	25.0	31.0	27.0	31.0	29.0
29	18.0	19.0	13.0	15.0	---	18.0	20.0	21.0	26.0	26.0	31.0	28.0
30	15.0	17.0	9.0	11.0	---	21.0	---	22.0	27.0	26.0	31.0	24.0
31	19.0	---	10.0	12.0	---	21.0	---	28.0	---	24.0	32.0	---
MONTH	20.5	15.0	14.0	9.0	12.0	16.0	22.0	25.5	29.5	30.5	29.0	28.0

07335000 CLEAR BOGGY CREEK NEAR CANEY, OKLA.

LOCATION.--Lat 34°15'09", Long 96°12'19", in NW1/4 SE1/4 sec. 36, T. 3 S., R. 10 E., Atoka County, at gaging station at bridge on old U.S. Highways 69 and 75, 0.5 mi (0.8 km) downstream from Caney Creed, 1.5 mi. (2.4 km) north of Caney, and at mile 24.1 (38.8 km).

DRAINAGE AREA.--720 sq mi (1,864.8 km^2).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)
OCT.							
29...	1250	11	132	0	13	16	.80
NOV.							
10...	170	30	248	0	22	53	.40
DEC.							
03...	101	--	--	--	--	--	--
21...	87	49	288	0	31	88	.30
JAN.							
14...	93	33	294	0	37	52	.30
27...	67	--	--	--	--	--	--
FEB.							
05...	78	--	--	--	--	--	--
17...	64	60	300	0	38	110	.10
MAR.							
05...	144	--	--	--	--	56	--
16...	102	45	270	0	33	78	.10
26...	66	--	--	--	--	84	--
APR.							
01...	68	48	248	0	35	69	.10
08...	48	--	--	--	--	--	--
15...	41	--	--	--	--	--	--
21...	1050	--	--	--	--	--	--
26...	480	--	--	--	--	--	--
MAY							
04...	136	29	228	0	30	43	.50
20...	84	--	--	--	--	--	--
28...	2240	--	--	--	--	--	--
JUNE							
02...	442	--	--	--	--	--	--
16...	192	14	120	0	16	21	.20
30...	27	--	--	--	--	--	--
JULY							
13...	14	63	254	0	29	120	.10
21...	8.0	--	--	--	--	--	--
AUG.							
17...	334	23	128	0	18	39	.50
31...	38	--	--	--	--	--	--
SEP.							
14...	12	--	--	--	--	--	--
27...	290	10	84	0	12	14	.20

07335000 CLEAR BOGGY CREEK NEAR CANEY, OKLA.

PERIOD OF RECORD.--Chemical analyses: Water years 1952-1955 (partial-record station), October 1955 to September 1959, water years 1960-1961 (partial record station), October 1961 to current year. Water temperatures: October 1955 to September 1959.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT.								
29...	276	.38	932	120	12	.4	474	7.7
NOV.								
10...	335	.46	154	240	37	.8	596	8.0
DEC.								
03...	--	--	--	--	--	--	731	--
21...	423	.58	99.4	290	58	1.3	770	8.0
JAN.								
14...	386	.52	96.9	280	39	.9	677	8.0
27...	--	--	--	--	--	--	763	--
FEB.								
05...	--	--	--	--	--	--	836	--
17...	482	.66	83.3	300	54	1.5	855	8.0
MAR.								
05...	--	--	--	--	--	--	624	8.0
16...	449	.61	124	270	49	1.2	718	8.0
26...	--	--	--	--	--	--	779	8.0
APR.								
01...	429	.58	78.8	250	47	1.3	711	8.1
08...	--	--	--	--	--	--	915	--
15...	--	--	--	--	--	--	810	--
21...	--	--	--	--	--	--	572	--
26...	--	--	--	--	--	--	402	--
MAY								
04...	311	.42	114	220	33	.9	544	8.0
20...	--	--	--	--	--	--	637	--
28...	--	--	--	--	--	--	150	--
JUNE								
02...	--	--	--	--	--	--	303	--
16...	159	.22	82.4	110	12	.6	204	7.7
30...	--	--	--	--	--	--	779	--
JULY								
13...	452	.61	17.1	270	62	1.7	804	8.1
21...	--	--	--	--	--	--	885	--
AUG.								
17...	209	.28	188	130	25	.9	368	7.7
31...	--	--	--	--	--	--	552	--
SEP.								
14...	--	--	--	--	--	--	708	--
27...	113	.15	88.5	78	9	.5	202	7.3

07335700 KIAMICHI RIVER NEAR BIG CEDAR, OKLA.
(Hydrologic bench-mark station)

LOCATION.--Lat 34°38'18", long 94°36'45", in SW1/4SE1/4 sec.18, T.2 N., R.26 E., LeFlore County, in Ouachita National Forest, at gaging station at bridge on State Highway 63, 0.2 mi (0.3 km) upstream from Rattlesnake Creek, 1.1 mi (1.8 km) upstream from Big Branch, 2.1 mi (3.4 km) east of Big Cedar, and at mile 157.6 (253.6 km).

DRAINAGE AREA.--40.1 sq mi (103.9 km²).

PERIOD OF RECORD.--Chemical analyses: December 1965 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
OCT. 06...	22	9.0	1.4	.5	2.3	.9	10	0	1.2	2.0	.1	.20
NOV. 03...	71	8.2	1.2	.7	1.8	.8	6	0	3.0	2.0	.0	.10
DEC. 08...	11	7.7	.8	.8	1.8	.7	8	0	2.4	1.5	.1	.40
JAN. 13...	140	7.3	1.2	.2	1.8	.8	6	0	2.6	2.5	.0	.20
FEB. 17...	69	7.4	8.0	5.0	1.7	6.0	4	0	3.6	1.5	.0	.00
MAR. 17...	102	7.8	1.2	.2	1.8	.6	6	0	4.0	1.5	.0	.10
APR. 20...	402	7.4	1.6	.5	1.6	.9	4	0	4.0	2.5	.0	.30
MAY 05...	22	9.0	1.6	.5	1.8	.7	10	0	.8	1.6	.1	.00
JUNE 16...	9.4	8.0	2.4	.5	2.0	.5	8	0	1.7	2.5	.1	.20
JULY 07...	1.5	6.7	1.6	1.4	2.2	.6	12	0	2.2	2.8	.0	.20
AUG. 24...	7.0	9.1	1.6	1.9	6.7	1.0	12	0	4.0	9.6	.0	.30
SEP. 21...	.86	7.6	1.6	1.9	2.4	1.0	14	0	2.4	2.8	.0	.10

DATE	PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	OXYGEN CONSUMED (UNFILTERED) (MG/L)	BIOCHEMICAL OXYGEN DEMAND (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT. 06...	.04	28	.04	1.66	6	0	.4	24	6.5	2.5	.8	30
NOV. 03...	.02	23	.03	4.41	6	1	.3	21	6.3	.7	.8	40
DEC. 08...	.00	22	.03	.65	6	0	.3	22	6.7	2.6	.5	20
JAN. 13...	.01	19	.03	7.18	6	1	.4	20	6.6	2.2	.0	0
FEB. 17...	.00	19	.03	3.54	4	1	.1	19	6.6	1.8	.1	20
MAR. 17...	.01	22	.03	6.06	6	1	.4	21	6.4	1.5	2.2	20
APR. 20...	.03	25	.03	27.1	6	3	.3	26	6.1	2.5	1.0	30
MAY 05...	.06	21	.03	1.25	6	0	.3	22	6.1	2.3	.8	50
JUNE 16...	.00	25	.03	.63	8	1	.3	24	6.2	2.2	.9	0
JULY 07...	.01	27	.04	.11	10	0	.3	30	6.2	3.4	2.0	0
AUG. 24...	.00	45	.06	.80	12	2	.8	55	6.5	2.5	.7	30
SEP. 21...	.04	23	.04	.05	12	1	.3	30	6.2	2.7	.0	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	DISSOLVED URANIUM (U) (UG/L)
11-3-70	.4	.4	1-2	.4	.04	.02

07335700 KIAMICHI RIVER NEAR BIG CEDAR, OKLA.--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	ALDRIN (UG/L)	CHLOR-DANE (UG/L)	DDD (UG/L)	DDE (UG/L)	DDT (UG/L)	DI-ELDRIN (UG/L)	ENDRIN (UG/L)	HEPTA-CHLOR (UG/L)
NOV.								
03...	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR EPOXIDE (UG/L)	LINDANE (UG/L)	2,4-D (UG/L)	2,4,5-T (UG/L)	SILVEX (UG/L)	DI-AZINON (UG/L)	MALA-THION (UG/L)	METHYL PARA-THION (UG/L)	PARA-THION (UG/L)
NOV.									
03...	.00	.00	.00	.00	.00	.00	.00	.00	.00

ANALYSES OF MINOR AND TRACE CONSTITUENTS, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT.								
06...	20	7	40	0	0	0	0	0
NOV.								
03...	30	0	0	10	0	0	0	0

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
OCT.				
06...	1530	22	2	.12
NOV.				
03...	1700	71	2	.38
DEC.				
08...	1500	11	2	.06
JAN.				
13...	1300	140	2	.76
FEB.				
17...	1400	69	2	.37
MAR.				
17...	1100	102	2	.55
APR.				
20...	1400	402	22	24.
MAY				
05...	1300	22	5	.30
JUNE				
16...	1400	9.1	11	.28
JULY				
07...	1100	1.5	12	.05
SEP.				
21...	1500	.96	5	.01

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)
OCT.							
06...	29	7.9	20.0	8.7	98	6300	--
NOV.							
03...	63	7.8	9.5	11.0	102	400	22
DEC.							
08...	19	6.9	9.0	10.6	98	140	5
JAN.							
13...	26	7.3	9.5	10.1	88	--	17
FEB.							
17...	17	6.7	10.0	10.2	96	--	--
MAR.							
17...	16	6.7	10.0	10.1	94	--	--
APR.							
20...	21	7.8	15.0	9.1	97	3400	360
MAY							
05...	21	8.0	17.0	8.4	94	250	30
JUNE							
16...	40	7.8	27.0	7.6	100	210	10
JULY							
07...	36	7.9	30.0	5.0	68	1100	40
AUG.							
24...	32	6.7	26.0	7.3	94	7600	11
SEP.							
21...	34	7.9	21.5	8.0	95	--	--
29...	31	--	22.0	7.9	95	1500	45

07336730 RED RIVER NEAR VALLIANT, OKLA.

LOCATION.--Lat 33°55'20", long 95°94'56", McCurtain County, 5.75 mi (9.25 km) south of Valliant, 0.1 mi (0.2 km) upstream from Garland Creek, approximately 8.8 mi (14.2 km) upstream from Highway 37 bridge.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED NITRITE (NO2) (MG/L)	DIS- SOLVED AMMONIA ORGANIC NITRO- GEN (N) (MG/L)	PHOS- PHATE (PO4) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.							
07...	121	--	.20	.0	.12	.01	771
21...	49	--	1.1	.0	.18	.21	358
NOV.							
04...	27	--	.60	.0	1.5	.19	277
11...	73	--	.20	.0	.62	.07	600
JAN.							
27...	110	--	.50	--	--	.02	705
FEB.							
17...	76	--	.40	--	--	.03	518
MAR.							
10...	77	--	1.0	--	--	.04	532
31...	180	--	.50	--	--	.06	1010
APR.							
07...	100	--	.10	--	--	.04	753
14...	140	--	.00	--	--	.07	888
21...	120	--	.60	--	--	.06	742
MAY							
19...	49	--	.10	--	--	.16	373
26...	130	--	.70	--	--	.18	760
JUNE							
09...	31	--	.80	--	--	.17	272
16...	130	--	.10	--	--	.05	815
30...	210	--	.50	--	--	.02	1180
JULY							
14...	180	.07	.30	--	--	.07	1120
AUG.							
04...	120	.07	.30	--	--	.15	714
18...	47	.52	2.3	--	--	.16	369
25...	270	.14	.60	--	--	.04	1300
SEP.							
01...	270	.09	.40	--	--	.13	1340
15...	190	.23	1.0	--	--	.05	1070

07336730 RED RIVER NEAR VALLIANT, OKLA.

DRAINAGE AREA.--46,730 sq mi (121,030.7 km^2).

PERIOD OF RECORD.--Chemical analyses: July 1970 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (MG/L)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)
OCT.						
07...	7.8	20	16	6.2	3.2	1
21...	8.0	35	95	8.8	2.2	1
NOV.						
04...	8.0	35	45	8.4	2.3	3
11...	8.5	80	20	4.7	4.0	3
JAN.						
27...	7.8	4	20	4.0	1.0	0
FEB.						
17...	7.8	40	20	5.4	.8	0
MAR.						
10...	7.3	5	20	2.2	1.0	0
31...	7.6	10	25	3.8	3.2	--
APR.						
07...	7.8	15	8	4.0	2.2	1
14...	7.3	5	15	4.3	2.6	0
21...	7.3	1	20	6.2	1.9	2
MAY						
19...	7.5	20	24	8.3	3.0	0
26...	7.6	20	35	7.4	2.6	1
JUNE						
09...	7.7	95	80	8.0	1.8	1
16...	7.9	20	15	6.8	2.2	0
30...	7.3	0	10	5.6	2.2	--
JULY						
14...	7.2	10	10	6.7	3.7	25
AUG.						
04...	7.3	40	20	6.6	1.2	1
18...	7.4	35	280	9.2	2.1	2
25...	7.4	10	10	4.8	1.4	--
SEP.						
01...	7.6	5	10	4.1	1.2	2
15...	7.4	5	30	5.8	4.4	14

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
UCT.					
07...	790	8.6	22.0	8.4	100
14...	120	7.8	15.0	7.3	75
21...	360	7.9	15.0	8.9	92
NOV.					
04...	260	8.2	11.0	10.1	94
11...	590	8.7	12.0	10.2	98
JAN.					
27...	--	8.4	8.0	10.8	94
FEB.					
17...	550	--	10.0	10.1	93
MAR.					
10...	490	--	9.0	11.0	99
31...	1010	--	15.5	9.5	99
APR.					
07...	825	--	13.0	10.0	98
14...	1450	--	18.0	8.9	102
21...	750	--	19.0	8.4	95
MAY					
19...	390	--	22.0	8.4	100
26...	875	--	23.0	8.0	95
JUNE					
09...	260	--	26.0	7.0	88
16...	950	--	29.0	7.4	98
30...	1170	--	27.0	7.8	100
JULY					
14...	1100	--	30.0	7.1	96
AUG.					
04...	660	--	25.0	7.5	94
18...	640	--	27.5	6.4	83
25...	1100	--	28.0	7.3	95
SEP.					
01...	1250	--	27.0	7.4	95
15...	1100	--	26.5	7.4	95

07336760 RED RIVER NEAR MILLERTON, OKLA.

LOCATION.--Lat 33°51'42", long 95°01'51", McCurtain County, at State Highway 37 bridge, 8.2 mi (13.2 km) southwest of Millerton, approximately 8.8 mi (14.2 km) downstream from Garland Creek.

DRAINAGE AREA.--46,930 sq mi (121,548.7 km^2).

PERIOD OF RECORD.--Chemical analyses: July 1970 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED AMMONIA ORGANIC NITRO-GEN (N) (MG/L)	PHOS-PHATE (PO4) (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	COLOR (PLAT-INUM-COBALT UNITS)	TUR-BID-ITY (MG/L)	OXYGEN CON-SUMED (UNFIL-TERED) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND (MG/L)	PHENOLS (UG/L)
OCT.												
07...	122	.30	.01	.26	.05	778	7.7	20	16	6.5	3.5	3
14...	8.0	2.4	.03	.48	.20	148	7.9	50	280	13.0	2.2	2
21...	49	.50	.00	.32	.23	351	8.0	35	110	9.4	1.6	1
28...	4.1	.90	.02	.62	.16	78	7.1	120	170	13.0	1.7	2
NOV.												
04...	19	.70	.10	1.0	.16	252	8.0	50	55	7.8	1.8	2
11...	49	1.0	.01	.70	.14	441	8.2	70	35	8.4	3.6	2
18...	81	.40	.01	1.1	.31	530	7.9	50	45	7.5	1.8	0
24...	196	.20	.02	.18	.28	1050	8.0	30	45	5.9	1.8	1
DEC.												
02...	180	.40	.10	.94	.09	1090	8.2	5	20	4.8	2.2	1
09...	190	.20	.03	.47	.09	1050	8.0	2	25	3.0	1.0	2
16...	180	.60	.02	.09	.14	1020	8.1	1	20	3.8	.6	1
22...	180	.70	.03	.56	.04	943	8.0	3	90	9.2	2.0	--
29...	220	.50	.02	.24	.10	1180	8.0	20	45	3.8	.7	1
JAN.												
06...	78	.20	.03	1.3	.25	481	7.9	120	270	6.5	2.8	2
13...	128	.90	.02	.38	.19	1170	7.9	45	45	5.1	.4	3
20...	100	.50	--	--	.08	628	7.9	70	85	5.9	2.0	0
27...	120	.10	--	--	.01	758	7.8	35	25	4.3	.5	0
FEB.												
03...	130	.20	--	--	.02	808	8.0	30	30	3.6	1.2	2
10...	80	.20	--	--	.10	675	7.9	5	15	3.5	.9	1
17...	78	.50	--	--	.01	587	7.8	30	95	4.0	.8	2
24...	38	1.1	--	--	.14	296	7.5	70	700	2.0	2.4	7
MAR.												
03...	55	.80	--	--	.05	401	7.4	40	45	9.2	1.7	0
10...	77	.70	--	--	.04	533	7.4	10	20	2.2	1.2	0
17...	35	.50	--	--	.15	304	7.0	65	95	4.7	1.6	4
24...	110	.70	--	--	.18	728	7.4	35	30	5.7	3.4	0
31...	150	.80	--	--	.13	965	7.6	10	30	5.0	2.6	2
APR.												
07...	100	.10	--	--	.05	752	7.7	10	15	4.0	2.4	2
14...	140	.20	--	--	.02	909	7.3	5	25	5.3	2.2	1
21...	150	.00	--	--	.04	901	7.5	10	15	3.6	2.2	3
28...	53	1.0	--	--	.22	364	7.3	160	200	17.0	2.4	0
MAY												
05...	100	.20	--	--	.11	648	7.9	40	45	6.0	.8	1
12...	23	1.3	--	--	.23	201	7.4	70	85	14.0	2.6	1
19...	48	.90	--	--	.17	372	7.4	30	25	8.3	4.3	0
26...	120	.60	--	--	.10	770	7.4	15	42	9.6	2.8	3
JUNE												
02...	95	.90	--	--	.16	590	7.6	55	85	11.0	1.6	0
09...	31	.70	--	--	.18	277	7.8	80	100	6.0	2.2	1
16...	180	.00	--	--	.04	1000	7.8	10	20	13.0	2.8	1
23...	170	.10	--	--	.06	994	7.3	0	20	6.5	2.0	0
30...	180	.50	--	--	.00	1090	7.8	0	5	6.4	2.0	6
JULY												
07...	180	.10	--	--	.05	1010	7.1	5	10	6.3	2.0	6
14...	160	.10	--	--	.01	982	7.5	5	15	7.2	1.6	35
21...	270	.10	--	--	.05	1390	7.4	10	15	6.1	1.6	20
28...	85	1.4	--	--	.34	551	7.3	35	90	9.3	1.2	35
AUG.												
04...	120	.30	--	--	.22	752	7.4	50	35	6.8	1.2	0
13...	220	.30	--	--	.13	1160	7.0	10	30	7.0	1.6	--
18...	82	.20	--	--	.03	536	7.1	20	160	8.0	1.9	0
25...	290	.60	--	--	.05	1410	7.3	10	15	5.5	1.2	7
SEP.												
01...	280	.00	--	--	.13	1360	7.5	10	10	3.3	1.2	4
08...	200	.40	--	--	.22	1180	7.2	5	10	4.7	1.1	2
15...	210	.80	--	--	.05	1160	7.4	10	10	4.3	2.4	20
22...	240	.50	--	--	.14	1240	7.5	10	8	4.3	.2	14
29...	34	1.5	--	--	.23	337	7.5	70	300	12.0	2.6	14

07336760 RED RIVER NEAR MILLERTON, OKLA.--Continued

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT.					
07...	810	8.9	22.0	8.9	106
21...	350	7.9	15.0	8.8	91
28...	130	9.2	14.5	7.2	73
NOV.					
04...	240	8.4	10.0	10.0	92
11...	440	8.6	14.0	9.7	98
18...	540	8.0	8.5	10.6	95
24...	1050	7.6	6.0	10.8	89
DEC.					
02...	1080	8.4	16.5	9.8	104
09...	1000	8.1	12.5	9.8	95
16...	1000	8.1	8.0	10.9	96
22...	1200	8.1	10.0	10.0	93
29...	1290	8.0	8.0	10.8	95
JAN.					
06...	400	8.0	5.5	11.0	92
13...	830	7.8	7.0	11.3	97
20...	750	7.9	6.0	11.7	97
27...	--	8.2	9.0	11.0	98
FEB.					
03...	800	7.7	4.5	12.3	99
10...	650	--	5.0	12.2	100
17...	560	--	11.0	10.2	96
24...	330	--	9.0	9.6	87
MAR.					
03...	360	--	5.0	12.6	102
10...	530	--	10.0	11.2	104
17...	300	--	14.0	8.3	82
24...	690	--	10.5	10.8	99
31...	960	--	15.0	10.2	106
APR.					
07...	800	--	13.0	10.2	100
14...	1300	--	19.0	9.2	106
21...	940	--	20.0	9.1	105
28...	380	--	20.0	9.0	106
MAY					
05...	700	--	20.0	8.3	96
19...	380	--	23.0	8.4	101
26...	795	--	24.5	9.0	110
JUNE					
02...	560	--	27.0	7.3	95
09...	260	--	26.5	7.0	88
16...	950	--	29.0	7.9	105
23...	760	--	29.0	8.4	105
JULY		--			
07...	950	--	30.0	7.0	94
14...	920	--	29.5	6.9	92
21...	1400	--	24.5	7.7	95
28...	460	--	30.0	6.9	93
AUG.					
04...	710	--	25.0	7.6	95
13...	1000	--	27.5	7.4	96
18...	480	--	27.0	6.3	81
25...	1200	--	28.0	7.2	94
SEP.		--			
01...	1300	--	27.0	7.5	96
08...	1150	--	29.0	6.7	89
15...	1200	--	26.5	7.6	97
22...	1250	--	23.0	7.7	93
29...	300	--	24.0	8.0	98

07338500 LITTLE RIVER BELOW LUKFATA CREEK, NEAR IDABEL, OKLA.

LOCATION.--Lat 33°56'28", long 94°45'30", in SE1/4SE1/4 sec.14, T.7 S., R.24 E., McCurtain County, at gaging station on bridge on U.S. Highway 70 just downstream from Lukfata Creek, 5.0 mi (8.0 km) northeast of Idabel and at mile 103.4 (166.4 km).

DRAINAGE AREA.--1,226 sq mi (3,175.3 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT.								
13...	4000	5.0	16	0	7.8	3.5	.70	.06
NOV.								
11...	1530	2.4	18	0	3.6	2.6	.30	.03
DEC.								
22...	780	7.9	52	0	7.2	12	.80	.01
JAN.								
05...	3240	3.2	14	0	3.8	3.5	.60	.02
FEB.								
17...	1700	3.1	14	0	4.2	4.6	.40	.02
MAR.								
03...	1440	3.8	24	0	5.5	9.0	.40	.05
MAY								
05...	533	4.3	14	0	5.0	6.5	.20	.03
JUNE								
16...	232	8.0	22	0	5.5	12	.20	.04
JULY								
07...	124	12	32	0	5.0	20	.20	.04
AUG.								
31...	7390	3.7	16	0	5.0	5.4	.70	.03
SEP.								
15...	41	14	28	0	6.6	19	.80	.06

07338500 LITTLE RIVER BELOW LUKFATA CREEK, NEAR IDABEL, OKLA.

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1954, November 1960 to September 1963, October 1968 to current year.
Water temperatures: October 1947 to September 1954.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
OCT. 13...	.07	47	.06	508	18	5	.5	40	7.1
NOV. 11...	.09	42	.06	174	16	1	.3	42	6.7
DEC. 22...	.04	86	.12	181	48	5	.5	136	7.3
JAN. 05...	.05	36	.05	313	14	3	.4	42	7.0
FEB. 17...	.05	41	.06	186	16	5	.3	45	7.9
MAR. 03...	.16	52	.07	202	26	6	.3	70	7.3
MAY 05...	.09	48	.07	69.1	16	5	.5	57	6.6
JUNE 16...	.13	55	.07	34.4	24	6	.7	86	6.6
JULY 07...	.12	77	.10	25.0	32	6	.9	131	7.2
AUG. 31...	.09	45	.06	398	18	5	.4	52	6.3
SEP. 15...	.20	80	.11	8.86	24	1	1.2	114	6.6

FIELD ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION
OCT. 13...	43	6.9	21.0	8.2	96
NOV. 11...	55	8.1	13.5	8.5	85
DEC. 22...	163	7.8	9.5	10.0	96
JAN. 05...	34	7.8	5.0	11.8	93
FEB. 17...	35	8.1	9.0	10.7	96
MAR. 03...	70	8.0	7.0	10.2	87
APR. 21...	110	7.9	20.0	7.4	86
MAY 05...	59	--	18.5	7.7	86
JUNE 16...	100	7.1	28.5	5.6	74
JULY 07...	130	6.5	30.0	5.1	68
AUG. 31...	50	--	26.0	6.0	76
SEP. 15...	120	--	26.5	7.2	92

ARKANSAS RIVER BASIN

07243000 DRY CREEK NEAR KENDRICK, OKLA. (LAT 35°46'55", LONG 096°51'20")

DATE	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)
JULY								
01...	62	17	74	0	14	26	.59	2.6

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)
JULY								
01...	145	.20	24.3	72	11	.9	235	6.9

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)
JULY				
01...	1230	62.	4160	696.

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